
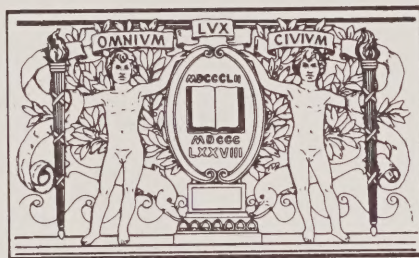


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Results of the 1985 Household Survey

III. Labor Force

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City of Boston Raymond L. Flynn, Mayor
Boston Redevelopment Authority Stephen Coyle, Director

Boston at Mid-Decade
Results of the 1985 Household Survey
III. Labor Force

Anne Hafrey

Boston Redevelopment Authority
Research Department

June 1987

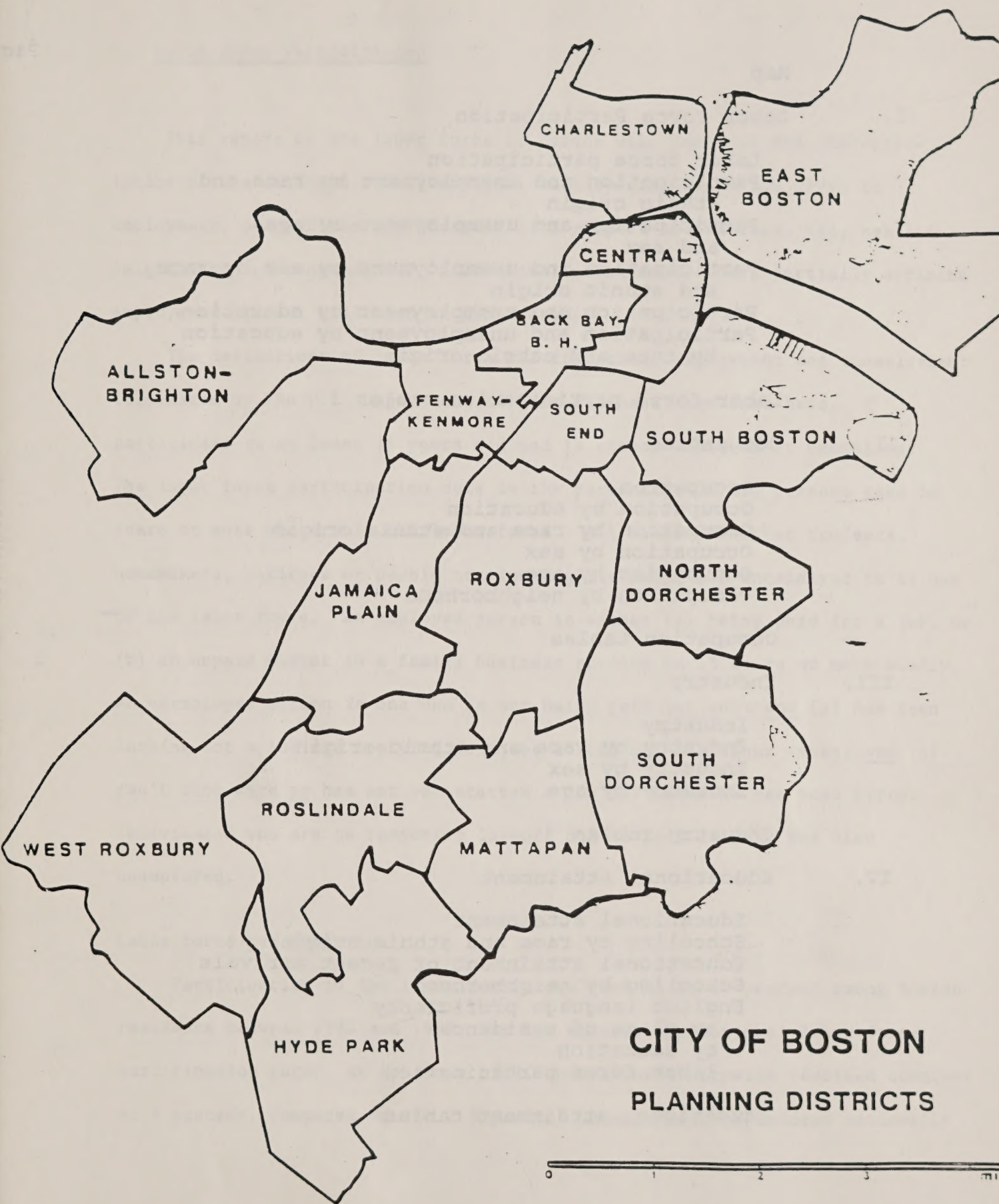
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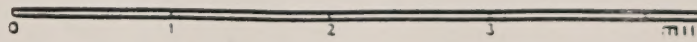


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I. Labor Force Participation

This report on the labor force of Boston will focus on the characteristics of the employed and unemployed, with special attention given to employment, occupations and industry with respect to the race, age, sex and neighborhood of respondents. Educational attainment, which partially explains employment status, will also be considered.

The definitions of labor force participation, employment and unemployment formulated by the U.S. Department of Commerce have been used here. A participant is at least 16 years old and is either employed or unemployed. The labor force participation rate is the percentage of all persons aged 16 years or more who are in the labor force. All others, whether students, homemakers, retirees or people not looking for work, are considered to be out of the labor force. An employed person is either (a) being paid for a job, or (b) an unpaid worker in a family business putting in 15 hours or more weekly. An unemployed person is one who is not being paid for work and (a) has been looking for a job and applying for jobs during the last four weeks, and (b) can't find work or has not yet started a job for which he has been hired. Individuals who are on temporary lay-off due to lack of work are also unemployed.

Labor force participation

Participation in the labor force rose from 62 to 67 percent among Boston residents between 1980 and 1985, and now exceeds the national labor force participation rate. At the same time, unemployment citywide remained constant at 6 percent, compared to the 7.5 percent unemployment registered nationally

for the same period. See Table 1. Charlestown, Roslindale and the South End showed the highest participation rates among Boston neighborhoods (75%, 74% and 78%, respectively). The Back Bay and Beacon Hill, which boasted an 82 percent participation rate in the 1980 survey, registered 71 percent labor force participation in 1985. (Some of the decline may be due to sampling variability. However, the rate measured for the 1980 Census was also 71 percent.) Only six neighborhoods fell below the city average: East Boston (56%), Roxbury (63%) and South Boston (62%), which posted increases over the 1980 figures; Hyde Park and Jamaica Plain, where participation remained steady at 63 and 65 percent, respectively; and North Dorchester (55%) where participation seems to have declined. In both the Back-Bay/Beacon Hill and North Dorchester cases, however, the decreases are within the range of sampling variability, and no demographic reason--e.g., high percentage of uneducated, or non-English-speaking, or Hispanic residents--can be found for the large drop in labor force participation in North Dorchester. Likewise, the huge increases in labor force participation in the South End (24 percentage points), and Roslindale (17 percentage points) may be partially due to sampling variability. See Table 1.

Participation and unemployment by race and ethnic origin

Among Boston residents aged 16 and over, 67 percent were in the work-force and participation varied only slightly between whites and blacks (68% versus 66%). Unemployment rates for these two groups differed sharply, however: 3 percent for whites compared to 14 percent for blacks. The combined unemployment rate for Asians and Hispanics was 8 percent. (Sample

sizes for the two groups separately are too small to be reliable.) See Table 2. National participation figures for whites and blacks were similar to the Boston rates, but the national unemployment rate for whites was nearly double the Boston average. National and city unemployment rates for blacks were essentially the same. See Table 3.

Participation and unemployment by age and sex

Labor force participation by women had caught up with men's to some extent, but women still joined the work-force in smaller numbers than men. In 1985, 74 percent of male residents aged 16 or more were in the labor force, compared to 60 percent of female residents of like age. Unemployment rates for men and women were nearly identical (7% versus 5%). See Table 4.

Participation among city residents rose steadily from 77 percent for the 20-24 year-old cohort to a peak of 87 percent among 35-44 year olds. Participation in the work-force dropped off sharply after age 54, with only half of those residents aged 55 to 64 years either looking for work or already employed. Aside from adolescents, the sub-population experiencing the highest unemployment rates in the city belonged in the 25-44 year cohort--i.e., the age-groups with the highest labor force participation rates. See Tables 5 and 5B.

Participation and unemployment by sex by race and ethnic origin

The difference in the labor force participation of white and minority males in 1985 was narrow, but their unemployment rates diverged widely. Participation among women was essentially the same regardless of minority status. Minority women experienced higher unemployment than white women. See Table 6.

Participation and unemployment by education

There is a strong link between educational attainment and labor force participation. In 1985, 43 percent of city residents aged 25 or over who had not completed high school were in the labor force, and 11 percent of them were unemployed. Two-thirds of high school graduates were in the work-force and experienced 7 percent unemployment. College attendance, and particularly completion of college studies, further increases participation levels: 75 percent of adults who had gone to college were working or were looking for work, as were 81 percent of those who had graduated from college. Unemployment dropped to 4 percent for those who had attended college and to 3 percent for college graduates. See Table 7.

One-third of employed adults were high school graduates with no further education, 35 percent had finished college (and perhaps graduate school) and another 18 percent had attended college. Of those respondents aged 25 and over who were not in the labor force, 38 percent had not completed high school and 34 percent were high school graduates who had not continued their education. The remaining 28 percent had either attended or completed college. Of the unemployed respondents to the survey, 30 percent had not finished high school and another 41 percent held high school diplomas but had not continued their schooling. See Table 8a.

Although a factor in labor force participation, education cannot be presumed to be its sole determinant. The differences in labor force participation by schooling which appear between the sexes would seem to have more to do with gender than with education. Men had higher participation rates

than women in all categories save one: some college, at which level participation and unemployment rates were the same for men and women (76% versus 75%). Reasons behind the low participation rate among women who did not complete high school (35%) might include age or choice, as well as lack of training. See Table 9.

Participation and unemployment by education by race and ethnic origin

Eighty-seven percent of employed adult residents were high school graduates, and slightly over a third had graduated from college. The patterns of educational attainment for employed blacks and Hispanics were similar to each other but differed from the distribution shown by whites. One-fifth of employed Hispanic residents and a quarter of employed black and Asian residents had not finished high school, compared to only 8 percent of employed whites. The highest proportions of college graduates among employed workers were found among whites (41%) and Asians (37%). See Table 10a.

These statistics also mark the trouble that even many well-educated blacks and Hispanics experienced in finding jobs in Boston: in 1985, 19 percent of employed blacks and 23 percent of employed Hispanics had earned college degrees. At that time, however, 15 percent of all black adults and 19 percent of all Hispanic adults were college graduates; these figures indicate that nearly one-third of these graduates were not working. Among whites, on the other hand, although just under a third of adults had completed college, 41 percent of employed adults held college degrees. See Tables 10a and 10b.

Labor Force Tables

Labor Force Definitions
Used in
Study of Boston's Neighborhoods

A person is said to be a Labor Force Participant if he or she is currently employed or unemployed, and at least 16 years of age.

Labor Force Participation Rates are determined by summing all labor force participants in a particular population, and dividing by the total number of persons in that population 16 and over.

(A) Employed: A person is considered employed if he/she falls into one of the following categories:

1. Is employed for pay at a job; or
2. Is an unpaid worker in a family business working at least fifteen hours a week.

(B) Unemployed: A person is considered unemployed if he/she meets all of the following criteria:

1. Is not employed for pay;
2. Is on temporary lay-off from a job due to lack of work;
3. Has been looking for work during the previous four weeks;
4. Can't find a job or has found one but has not yet started it.

Source: Boston and Its Neighborhoods, Boston Redevelopment Authority Research Department, 1982.

	Labor Force Participation			Unemployment		
	1985	1980	US Census 1980	1985	1980	US Census 1980
East Boston	56	48	56	9	5	7
Charlestown	75	69	61	8	4	8
South Boston	62	59	52	4	7	7
Central	71	67	69	3	3	6
Back Bay-Beacon Hill	71	82	71	1	4	4
Fenway-Kenmore	65	68	64	a	3	5
South End	78	54	54	9	9	4
Allston-Brighton	69	68	62	3	8	5
Jamaica Plain	65	65	58	11	9	6
Roxbury	63	56	54	14	7	10
North Dorchester	55	66	58	3	8	7
South Dorchester	68	60	59	8	4	7
Mattapan	72	63	63	11	9	9
Roslindale	74	57	58	7	3	6
West Roxbury	67	56	60	4	3	4
Hyde Park	63	62	64	1	4	6
BOSTON	67	62	60	6.2	5.7	6.1
UNITED STATES	65	64	NA	7.5*	6.5**	NA

Notes: 1985 data based on 2,606 observations (weighted).
a -Indicates less than 0.5 percent.

Rates not seasonally adjusted.

Sources: Boston Redevelopment Authority and Neighborhood Development
Employment Agency Household Survey, conducted by the Center for
Survey Research, 1985.
Boston Redevelopment Authority Household Survey, conducted by
the Center for Survey Research, 1980.
* Bureau of Labor Statistics, News Release, May 14, 1985,
national rate for March 1985.
** Bureau of the Census, 1980 Census of Population and Housing.

Table 2a. Labor Force Participation and Unemployment Rates.
by Race and Ethnic Origin, 1985

	Labor Force Participation -----	Unemployment -----
White	68	3
N cases =	1722	1163
Black	66	14
N cases =	575	382
Other minority	62	8
N cases =	289	179
All races	67	6
N cases =	2586	1723

Note: data based on 2,586 observations (weighted).

Table 2b. Distribution of Labor Force Participants, by
Race and Ethnic Origin, 1985.

	White -----	Black -----	Asian -----	Hispanic/ Other -----	Total -----	N -----
Labor force participation	67	22	4	6	100	1723
Employed	70	20	4	6	100	1616
Unemployed	36	51	5	8	100	107

Notes: Based on 1,723 observations (weighted).

"N cases" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development
and Employment Agency Household Survey, conducted by the
Center for Survey Research, 1985.

Table 3. Labor Force Participation and Unemployment
Rates by Sex, by Race, and by Age by Sex,
for the United States, March 1985

	Labor force Participation	Unemployment
	-----	-----
TOTAL	65.0	7.3
Men	78.2	6.2
Women	54.8	6.7
White	65.3	6.2
Black	62.8	15.2
Hispanic origin	64.5	10.2
MEN		
16 - 19 years	NA	18.1
20 - 24 years	NA	11.7
25 - 54 years	NA	5.6
55 and over	NA	3.8
WOMEN		
16 - 19 years	NA	18.2
20 - 24 years	NA	10.5
25 - 54 years	NA	6.4
55 and over	NA	4.2

Source: U.S. Bureau of the Census, Statistical Abstract of
the United States, 1986. (106th ed.)

lfage/ablah33

Table 4. Labor Force and Unemployment Rates by Age and Sex, for Boston, 1985.

Age ---	MALE -----		FEMALE -----	
	Partici- pation -----	Unem- ployment -----	Partici- pation -----	Unem- ployment -----
16 - 24 years	71	11	66	5
N cases=	329	234	333	221
25 - 64 years	75	7	71	5
N cases=	849	639	837	597
65 + years	20	*	10	*
N cases=	122	24	219	21
Total	74	7	60	5
N cases=	1197	889	1387	835

Notes: Based on 2,584 observations (weighted).

* Indicates that sample is too small to be reliable.

"N cases" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 5a. Labor Force Participation and Unemployment Rates by Age, for Boston Residents, 1985

Age ---	Labor Force Participation -----	Unemployment -----	% of labor fo in cohort -----
16 - 19 years	48	24	7
N cases=	191	92	
20 - 24 years	77	4	18
N cases=	472	363	
25 - 29 years	80	7	16
N cases=	424	339	
30 - 34 years	84	6	11
N cases=	274	230	
35 - 44 years	87	6	14
N cases=	388	338	
45 - 54 years	77	4	11
N cases=	261	202	
55 - 64 years	51	2	10
N cases=	238	121	
65 + years	13	2	13
N cases=	342	45	
Total	67	6	100
N cases=	2588	1725	2588

Notes: Based on 2,588 observations (weighted).

"N cases" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 5b. Labor Force Participation and Unemployment Rates, for
Race and Ethnic Origin, by Age, 1985 (in percent)

	<u>White</u>		<u>Minority</u>		<u>All Races</u>	
	<u>Partici-</u> <u>pation</u>	<u>Unem-</u> <u>ployment</u>	<u>Partici-</u> <u>pation</u>	<u>Unem-</u> <u>ployment</u>	<u>Partici-</u> <u>pation</u>	<u>Unem-</u> <u>ployment</u>
16 - 19 years	49	6	39	44	44	24
N =	100	49	110	43	210	92
20 - 24 years	80	3	63	11	75	4
N =	348	280	126	83	473	363
25 - 29 years	82	4	73	14	79	7
N =	284	234	142	103	426	337
30 - 34 years	86	2	78	11	82	6
N =	162	139	117	91	279	230
35 - 44 years	86	6	82	8	86	7
N =	232	208	158	131	389	338
45 - 54 years	81	3	68	5	75	4
N =	152	123	115	79	267	202
55 - 64 years	50	2	50	9	50	3
N =	174	88	68	34	241	121
65 years & over	15	*	17	8	16	2
N =	295	45	70	12	365	57
Total	67	3	63	12	66	6
N =	1744	1163	906	574	2650	1737

Notes: Based on 2,673 observations (weighted).
* Indicates less than 0.5 percent.
"N" refers to number of cases in sample.
** Insufficient sample

Source: Boston Redevelopment Authority and Neighborhood Development and
Employment Agency Household Survey, conducted by the Center for Survey
Research, 1985.
lfage/a35g87

Table 6. Labor Force Participation and Unemployment Rates by Sex by Race, 1985

	MALE		FEMALE		TOTAL	
	Particl- patlon -----	Unem- ploymen t -----	Particl- patlon -----	Unem- ploymen t -----	Particl- patlon -----	Unem- ploymen t -----
White	76	4	60	2	68	3
N cases=	812	617	909	545	1721	1162
Minority	71	15	61	10	65	12
N cases=	382	271	479	290	861	561
Total	73	7	60	5	67	6
N cases=	1193	886	1388	835	2581	1721

Note: Based on 2,581 observations (weighted).

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 7. Labor Force Participation and Unemployment Rates by Education, for Adults 25 Years or Over, 1985

	Labor Force Participation -----	Unemployment -----
Less than high school	43	11
N cases =	433	185
High school diploma	66	7
N cases =	651	429
Some college	75	4
N cases =	303	228
College graduate	81	3
N cases =	535	334
Total	66	6
N cases =	1921	1274

Notes: Based on 1,921 observations (weighted).

"N cases" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985. educse/h49083

Table 8a. Employment Status of Adults 25 Years and Over, by Highest Grade of School Completed, 1985
(in percent)

	Less than High School	High School Graduate	1-3 Years College	College Graduate	Total	N
Not in labor force	38	34	12	16	100	647
In labor force	15	34	18	34	100	1247
Employed	14	33	18	35	100	1205
Unemployed **	30	41	14	15	100	69
Total	23	34	16	28	100	1921

Note: Based on 1,921 observations (weighted).

Table 8b. Distribution of Employed Adults, 25 Years and Over, by Highest Grade of School Completed, 1985
(in percent)

	Less than High School	High School Graduate	1-3 Years College	College Graduate	Total
Not in labor force	57	34	25	19	34
Employed	38	62	72	79	63
Unemployed *	5	4	3	2	4
Total	100	100	100	100	100
N cases =	433	651	303	535	1921

Notes: Based on 1,921 observations (weighted).

* NOT an unemployment rate. For unemployment rates by education, see Table 7.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 9. Labor Force Participation and Unemployment Rates by Education by Sex, for Adults 25 Years and Over, 1985

	MALE		FEMALE	
	Partici- pation	Unemploy- ment	Partici- pation	Unemploy- ment
Less than high school diploma	53	12	35	10
N cases =	185	98	249	87
High school graduate	83	9	55	4
N cases =	265	219	386	211
1-3 years college	76	4	75	5
N cases =	155	118	147	110
College graduate	84	2	78	3
N cases =	263	222	270	210
Total	76	6	59	5
N cases =	866	656	1051	616

Notes: Based on 1,917 observations (weighted).

"N cases" indicates number of cases in sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

educse/h870121

Table 10a. Distribution of Employed Residents, 25 Years and Over, by Educational Attainment, by Race and Ethnic Origin, 1985
(in percent)

	White -----	Black -----	Asian -----	Hispanic/ Other -----	Total -----
Less than high school diploma	8	25	28	21	13
High school graduate	33	35	21	37	33
1 - 3 years college	18	20	15	19	18
College graduate	41	19	37	23	35
Total Employed	100	100	100	100	100
N cases =	800	265	56	73	1194

Notes: Based on 1,194 observations (weighted).

Table 10b. Highest Grade of School Completed, for Residents 25 Years and Over, by Race and Ethnic Origin, 1985

	White -----	Black -----	Asian -----	Hispanic/ Other -----	Total -----
Less than high school diploma	17	34	29	34	23
High school graduate	35	33	20	31	34
1 - 3 years college	16	18	14	16	16
College graduate	32	15	38	19	28
Total	100	100	100	100	100
N cases =	1297	424	95	123	1938

Notes: 1985 data based on 1,925 observations (weighted).

"N cases" indicates number of cases in sample.

Columns may not sum to 100 percent due to rounding.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.
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II. Occupation

Resident workers* were concentrated in three categories in 1985: professionals, technicians and managers (36%), service occupations (18%) and office support/secretarial workers (20%). The professional group grew from 23 percent in 1970, and 30 percent in 1980, to 36 percent in 1985. Office support workers made up 27 percent of the total in 1970 and 26 percent of it in 1980**, and declined still further to employ 20 percent of Boston residents by 1985. Sales retained its position of fifteen years ago with 7 percent of the total. Both craftsmen and operatives declined as a proportion of workers in the city during the 1970s but had not lost further ground between 1980 and 1985***. See Table 11.

Occupation by education

Eighty-five percent of professionals, technicians and managers aged 16 or more had at least some college education, as did nearly three-quarters of sales staff and 48 percent of secretaries. By contrast, 82 percent of operatives, 70 percent of service workers and 71 percent of craftsmen and mechanical workers had no more than a high school education. Indeed, 39 percent of operatives had not finished high school, suggesting that lower

*Note that all Boston workers are defined by place of residence, not by place of work. An analysis of data for residents by place of work is included in a later section of this report.

**In both years "clerical" included "secretarial". Secretaries are classified as a sub-group within the clerical category, which also includes the administrative support sector--e.g. computer operators and financial records processors--which requires highly educated and trained personnel.

***For a selected list of services occupations and industries, please see Appendix at end of this section.

skills are required for this occupation than for others. Operatives also tended to be older: 33 percent of operatives in 1985 were at least 45 years old. A slightly larger share of service workers were of like age although a smaller proportion of them lacked much formal education (70% had a high school diploma or less). See Tables 12, 13 and 17.

In only two of the occupational categories did at least half of the resident workers possess a college degree. In the service and clerical/secretarial categories approximately 10 percent of the employed residents had finished college. Overall, just under one-third of the resident labor force in Boston held college diplomas, an average which the higher incidence of professionals in the work-force has raised considerably. See Table 12.

Overall, approximately one quarter of labor force participants who had not completed high school worked as operatives in 1985, and another 40 percent were employed as service workers. Unsurprisingly, the largest proportion of college graduates were in professional, technical and managerial occupations (71%) with sales and clerical a distant second and third (approximately 10% each). See Table 13.

Occupation by race and ethnic origin

Whites accounted for 68 percent of resident workers, blacks made up 21 percent of the employed and Hispanics and Asians held 6 and 5 percent, respectively, of the total in 1985. Eighty percent of the professional-level workers in Boston were white, as were 82 percent of sales staff.

This represents a decline in whites' share of professional, technical and managerial jobs from 1980, as blacks and Asians increased their percentage of that category. Blacks also accounted for a larger share of operatives in 1985 than they had in 1980. Blacks exceeded their overall proportional

representation in two occupational sectors--service workers and operatives--jobs which tend to be semi-skilled and, in many cases, low-paid. Asian and Hispanic residents were also overrepresented in service jobs. See Table 14.

Although whites accounted for a smaller share of all professionals in 1985 than in 1980, a larger proportion of whites held professional-level jobs in 1985 than in 1980. Sales was the other occupational category in which whites were more concentrated than earlier. Clerical occupations, on the other hand, employed fewer whites in 1985 than in 1980. Larger shares of black and Asian residents worked in professional-level jobs as well. For both groups, clerical/secretarial jobs employed fewer residents. The lessened importance of office support as an occupational sector for the three above-mentioned populations is offset, to some extent, by its expanded role among Hispanics. In fact, the only sector in which a clear-cut increase occurred for Hispanic residents was in clerical/secretarial. Declines in representation for this group would seem to have taken place in the occupations of laborers and service workers. See Table 15.

Occupation by sex

Employment among Boston residents was split along similar gender lines in 1985 as in 1980, although it appears that women made up closer to half of the labor force in 1985. Thirty-five percent of resident male workers were employed in professional, technical and managerial positions in 1985, as were 36 percent of resident female workers. This represented an increase over 1980 for women. Twelve percent of men worked as office support staff, and another 12 percent as operatives. Fifteen percent were craftsmen and 17 percent held service jobs. These proportions closely resembled the overall occupational breakdown in 1980. For women, the second largest occupational

category was clerical/secretarial, although this sector shrank from 40 percent of the total in 1980 to 23 percent in 1985. Sales gained in importance as an occupation for women as a larger proportion of women held sales positions in 1985. Service jobs, however, still held third place: 19 percent of resident female workers filled such positions. See Table 16.

Occupation by age

Certain changes occurred in the age-distribution of Boston resident workers between 1980 and 1985. Although young adults (20-24 years) accounted for the same share of the population in both years, their representation among the employed increased from 16 to 23 percent. Among the remaining cohorts, adolescents (and possibly adults aged 55 to 64) made up less of the employed work-force in 1985 than 1980. Those residents who were 35-44 years old grew as a proportion of the working population. See Table 17.

Workers aged 20-24 years, in keeping with their larger role among the employed, showed increases in their shares of nearly all occupations, but, especially of sales, clerical and labor. Two shifts seem to have taken place among resident workers 25-29 years old: a sharp increase in the proportion employed in the crafts/mechanical sector and an even sharper drop in the proportion working as laborers. Like proportions of employed residents aged 30 to 44 held professional, managerial or technical jobs (37%) in both years but in 1985 a slightly larger share of those were in the elder cohort. See Table 17.

The distribution of occupations by age-cohort clarifies the changes undergone within the 1980-85 period. Although overall noticeable changes took place in only three sectors (professionals, sales personnel and clerical staff), these obscure occupational shifts that occurred within and between cohorts. See Table 18. More Bostonians of all ages--except those 16-24 years

old--held jobs in the professional/technical/managerial sector. The increase among those aged 25-29 years was larger than for other cohorts. Sales also grew as an occupation for Boston residents in most age-groups. Office support declined as a source of employment for those under 20 years of age, as well as for those between 25 and 34 years and those between 45 and 54 years, by large enough percentages to offset the increase or lack of change which may have occurred among the remaining cohorts, and to show an overall decline of about 10 percentage points for that sector. See Table 18.

Occupation by neighborhood

The distribution of occupations pursued by residents of Boston neighborhoods in 1985 reflected the variety of people living in the city. Most neighborhoods followed the overall city occupational structure, with concentrations among their residents of professionals/technicians/managers, office support/secretarial staff and service workers, with either crafts/mechanical workers, operatives or sales people as a fourth bloc. In certain districts, however, the emphasis on the three primary occupations shifted more to one or the other of them--e.g. in North Dorchester, 34 percent of neighborhood residents' jobs were office support/secretarial (vs. 20% citywide). In a few other districts the dominant occupations differed from the city norm--e.g. Mattapan, South Boston, East Boston, South Dorchester and Roxbury showed a more strongly diversified occupational structure than Boston overall, while Charlestown, Back Bay-Beacon Hill and West Roxbury exhibited a more restricted distribution. See Table 19.

Mattapan was the only neighborhood in which less than a fifth of resident workers held managerial/professional/technical jobs. In nine others, more than one-third of the workers were employed in such jobs, and the proportion exceeded one-half in the Central district. Only six neighborhoods fell below the citywide average in this field. Sales personnel accounted for

a large proportion of Back Bay-Beacon Hill workers (18%), as well as South End (10%), Jamaica Plain and Fenway-Kenmore (8% each) employees. Office support staff were most numerous, proportionally, in Charlestown and North Dorchester (23% and 28%, respectively). Craftsmen and operatives were concentrated in East and South Boston, Mattapan, Roxbury and Dorchester. Laborers, too, made up relatively sizeable proportions of the work-force in East and South Boston, Charlestown and South Dorchester. The neighborhoods with the highest proportions of service workers were the South End, Roxbury and Mattapan (26%, 26% and 24%, respectively) compared to 18 percent citywide. Back Bay-Beacon Hill registered only 5 percent service workers among its residents. See Table 19.

With 5 percent of the labor force, East Boston housed 11 percent of the craftsmen and 16 percent of the laborers living in the city, but only 4 percent of the professionals and 3 percent of the sales personnel. Back Bay-Beacon Hill, also with 5 percent of the labor force, had 10 percent of the professionals, 14 percent of the sales personnel and 7 percent of the laborers. Twelve percent of service workers lived in Roxbury, which held only 8 percent of the labor force. Allston-Brighton boasted over a fifth of sales and professional job-holders, and 17 percent of clerical workers, despite the fact that only 15 percent of the city's labor force lived within its boundaries. In similar fashion, South Dorchester contained only 10 percent of Boston workers but 12 percent of office support staff, 17 percent of operatives, and 23 percent of laborers. Fifteen percent of the operatives and 10 percent of laborers in Boston lived in Mattapan, which housed only 7 percent of the city's workers. The neighborhoods which most resembled the occupational mix of the city were West Roxbury, Charlestown, Central, Fenway-Kenmore and North Dorchester. See Table 20.

Occupation Tables

SELECTED SERVICE OCCUPATIONS AND SERVICE INDUSTRIES

SERVICE OCCUPATIONS

VERSUS

SERVICES INDUSTRIES

Selected Service Workers

Building Custodians

Food Service Workers

Bakers

Bartenders

Butchers

Cooks and Chefs

Hosts/Hostesses, Restaurant or Other

I. Professional

Legal

Medical

Dental

Financial

Architectural

Engineering

Educational

Planning

Accounting

Selected Health Service Workers

Dental Assistants

Health Aides, except Nursing

Licensed Practical Nurses

Nursing Aides, Orderlies and Attendants

Pharmacy Helpers

II. Business

Building Maintenance

Services

Advertising

Data Processing

Selected Personal Service Workers

Barbers and Hairstylists

Baggage Handlers, Bellhops and Porters

Checkroom and Locker-room Attendants

Ushers and Ticket-takers

Masseurs and Masseuses

Recreation Facility Attendants

Cosmetologists

Child-care Workers

Flight Attendants

III. Miscellaneous

Repair

Barber/Beauty Shops

Entertainment

Protective Service Workers

Bailiffs

Firefighters

Fish and Game Wardens

Guards and Lifeguards

Police Officers and Detectives

Sheriffs and U.S. Marshals

Private Detectives

Private Household Workers

U.S. Department of Labor,

Bureau of Labor

Statistics

U.S. Department of Commerce

Standard Industrial

Classifications

Table 11. Occupations of Employed Boston Residents, 16 Years and Over, for 1985, 1980 and 1970 (in percent)

	1985 -----	U.S. Census 1980 -----	U.S. Census 1970 -----
Professional, Technical and Managerial	36	30	23
Sales	7	7	6
Office Support	20	23	27
Crafts and Mechanical	8	8	10
Operatives	10	10	14
Laborers	2	3	4
Miscellaneous Services	18	18	17
Total	100	100	100
N cases =	1835		

Notes: 1985 data based on 1,835 observations (weighted).
"N cases" indicates number of cases in sample.

Sources: U.S. Bureau of the Census, 1970 and 1980 Census of Population
Boston Redevelopment Authority and Neighborhood Development
and Employment Agency Household Survey, conducted by the
Center for Survey Research, 1985.

Table 12. Occupations of Boston Residents, 16 Years or More,
by Highest Grade of School Completed, 1985
(in percent)

	Less than High School	High School Graduate	Some College	College Graduate	Total	N
Professional Technical, Managerial	2	13	22	63	100	655
Sales	9	19	23	50	100	131
Clerical, Secretarial	8	44	32	16	100	371
Crafts, Mechanical	17	54	22	7	100	144
Operatives	39	43	16	2	100	174
Laborers	23	48	23	7	100	31
Service Workers	32	38	21	9	100	324
TOTAL	14	31	23	32	100	1829

Notes: "Service Workers" include cleaning/food services, health services
and miscellaneous services.
Based on 1,829 observations (weighted).

Source: Boston Redevelopment Authority and Neighborhood Development and
Employment Agency Household Survey, conducted by the Center for
Survey Research, 1985.

Table 13. Distribution of Occupations of Boston Residents, 16 Years or More, by Highest Grade of School Completed, 1985

	Less than High School -----	High School Graduate -----	Some College -----	College Graduate -----	Total -----
Professional, Technical, Managerial	6	15	34	71	36
Sales	4	4	7	11	7
Clerical, Secretarial	12	29	28	10	20
Crafts, Mechanical	10	14	7	2	8
Operatives	26	13	6	1	10
Laborers	3	3	2	*	2
Service Workers	40	22	16	5	18
Total	100	100	100	100	100
N cases =	261	565	423	581	1829

Notes: data based on 1,829 observations (weighted).

"Service Workers" include cleaning/food services, health and miscellaneous services.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 14. Occupation of Employed Residents, 16 Years and Over, by Race and Ethnic Origin, 1985 (in percent)

	White		Black		Asian		Hispanic/ Other		All Races		N cases in 1985
	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985	
Professional, Technical Managerial	88	80	8	12	2	5	2	3	100	100	649
Sales	80	82	13	14	2	2	*	2	100	100	131
Clerical, Secretarial	77	70	18	20	2	2	2	8	100	100	370
Crafts, Mechanical	73	68	25	23	2	4	1	6	100	100	144
Operatives	58	50	28	34	5	6	6	10	100	100	172
Laborers	70	76	17	19	*	*	10	5	100	100	30
Service Workers	61	46	22	34	6	9	9	10	100	100	326
Total	75	68	17	21	3	5	5	6	100	100	1821

Notes: 1980 data based on 1,309 observations (weighted).

1985 data based on 1,821 observations (weighted).

Operatives include transportation operatives.

* indicates less than 0.5 percent.

"N cases" indicates number of cases in sample.

Sources: Boston Redevelopment Authority Household Survey, conducted by the Center for Survey Research, 1980.

Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 15. Distribution of Occupations of Employed Residents, 16 Years and Over, by Race and Ethnic Origin, 1980 and 1985 (In percent)

	White		Black		Asian		Hispanic/ Other		All Races	
	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985
Professional, Technical and Managerial	35	42	15	21	16	34	14	18	30	36
Sales	3	9	2	5	4	2	*	3	3	7
Clerical, Secretarial	27	21	27	20	20	10	13	26	25	20
Crafts, Mechanical	8	8	11	9	5	6	2	7	8	8
Operatives	8	7	17	16	16	11	16	16	10	9
Laborers	3	2	3	1	*	*	8	1	3	2
Service Workers	16	12	25	29	39	36	47	30	19	18
Total	100	100	100	100	100	100	100	100	100	100
N cases =	NA	1243	NA	381	NA	85	NA	113	1309	1821

Notes: 1980 data based on 1,309 observations (weighted).
1985 data based on 1,821 observations (weighted).

Operatives include transportation operatives.

* Indicates less than 0.5 percent.

"N cases" indicates number of cases in sample.

Sources: Boston Redevelopment Authority Household Survey, conducted by the Center for Survey Research, 1980.

Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 16. Distribution of Occupations of Employed Residents.
16 Years and Over, by Sex, 1980 and 1985
(in percent)

	Male		Female		Total	
	1980	1985	1980	1985	1980	1985
Professional, Technical and Managerial	32	35	27	36	30	36
Sales	4	6	3	8	3	7
Clerical, Secretarial	14	12	40	28	26	20
Crafts, Mechanical	14	15	2	1	8	8
Operatives	12	12	9	7	10	10
Laborers	5	3	1	*	3	2
Service Workers	20	17	19	19	19	18
Total	100	100	100	100	100	100
N cases =		918		914		1832
Percent of Labor Force	53	50	47	50	100	100

Notes: Columns may not total 100% due to rounding.
"Operatives" includes transportation operatives.
* Less than 0.5 percent.
1980 data based on 1,324 observations (weighted).
1985 data based on 1,832 observations (weighted).

Sources: Boston Redevelopment Authority Household Survey, conducted by the Center for Survey Research, 1980.
Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 17. Occupations of Employed Residents, 16 Years and Over, by Age, 1980 and 1985
(In percent)

	16-19		20-24		25-29		30-34		35-44		45-54		55-64		65 & over		Total	N
	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985		1985
Professional, Technical, Managerial	2	2	16	19	26	27	21	17	16	20	8	9	9	5	1	2	100	651
Sales	19	4	13	30	24	24	6	10	4	19	12	7	7	3	15	4	100	130
Clerical, Secretarial	17	8	19	32	21	15	10	8	11	17	11	9	9	9	2	3	100	371
Crafts, Mechanical	7	4	11	19	10	21	21	14	14	19	21	13	14	8	2	2	100	142
Operatives	7	5	16	16	15	13	13	11	19	22	11	17	17	11	3	5	100	174
Laborers	17	16	9	33	21	*	19	10	9	21	20	18	4	*	1	2	100	31
Service Workers	16	9	16	21	14	14	9	13	16	18	12	15	12	7	5	4	100	329
Proportion of All Workers	11	5	16	23	20	20	14	13	14	19	12	11	10	7	3	3	100	1826
Percent of Population	10	8	14	15	11	13	8	9	9	12	9	8	9	7	14	11	100	3271

Notes: * proportion totals less than 0.5 percent.

1980 data based on 1,302 observations (weighted).

1985 data based on 1,826 observations (weighted).

Rows may not total 100 percent due to rounding.

Sources: Boston Redevelopment Authority Household Survey, conducted by the Center for Survey Research, 1980.

Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household

Survey, conducted by the Center for Survey Research, 1985.

U.S. Bureau of the Census, 1980 Census of Population and Housing.

Table 18. Distribution of Occupations of Employed Residents, by Age, 1980 and 1985.
(in percent)

	16-19		20-24		25-29		30-34		35-44		45-54		55-64		65 & over		Total	
	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985
Professional, Technical, Managerial	6	10	29	29	39	49	43	47	34	37	22	28	25	26	24	26	30	36
Sales	6	6	3	10	4	9	1	6	1	7	3	5	2	3	15	9	3	7
Clerical, Secretarial	42	32	31	29	28	15	19	12	20	18	26	17	22	27	15	21	26	15
Crafts, Mechanical	5	7	6	7	4	8	12	8	8	8	14	9	11	9	6	6	8	8
Operatives	7	10	10	7	8	6	9	8	14	11	9	15	17	16	9	15	11	10
Laborers	5	6	2	2	3	*	4	1	2	2	5	3	1	*	1	1	3	2
Service Workers	29	31	20	17	14	13	12	17	22	17	21	24	22	19	29	23	19	18
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
N cases =	NA	92	NA	411	NA	360	NA	238	NA	349	NA	202	NA	120	NA	55	1302	1826
Percent of Workers	11	5	16	23	20	20	14	13	14	19	12	11	10	7	3	3	100	100
Percent of Population **	10	8	14	15	11	13	8	9	9	12	9	8	9	7	14	11	84	83

Notes: 1980 data based on 1,302 observations (weighted).

1985 data based on 1,826 observations (weighted).

* indicates less than 0.5 percent.

** does not sum to 100 percent because residents under 16 years are excluded.

Columns may not sum to 100 percent due to rounding.

Sources: Boston Redevelopment Authority Household Survey, conducted by the Center for Survey Research, 1980.
Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey,
conducted by the Center for Survey Research, 1985.

Table 19. Occupations of Employed Residents, 16 Years and Over, by Neighborhood, 1985
(in percent)

	Professional/ Technical/ Managerial	Sales	Clerical/ Secretarial	Crafts/ Mechanical	Operatives	Labor	Service Workers	Total	N
East Boston	26	4	19	17	11	5	18	100	95
Charlestown	44	5	27	5	3	4	13	100	39
South Boston	20	5	30	10	15	4	16	100	74
Central	50	4	16	4	8	*	18	100	76
Back Bay-	63	18	11	2	*	2	5	100	102
Beacon Hill									
South End	48	10	6	4	7	*	26	100	82
Fenway-Kenmore	43	8	18	8	5	1	18	100	107
Allston-	46	10	21	6	2	*	16	100	296
Brighton									
Jamaica Plain	36	8	17	3	12	2	21	100	137
Roxbury	27	4	19	10	15	*	26	100	147
North Dorchester	22	3	34	10	13	2	16	100	68
South Dorchester	22	7	23	8	16	4	20	100	185
Mattapan	16	3	21	11	23	3	24	100	114
Roslindale	27	5	24	14	9	3	18	100	100
West Roxbury	45	7	22	8	9	*	11	100	105
Hyde Park	36	7	22	8	8	1	17	100	109
BOSTON	36	7	20	8	10	2	18	100	1835

Notes: Based on 1,835 observations (weighted).

Rows may not total exactly to 100 percent due to rounding.

* Indicates less than 0.5 percent.

"N" Indicates number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

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Table 20. Distribution of Occupations of Employed Residents, by Neighborhood, 1985
(in percent)

	Professional/ Technical/ Managerial	Sales	Clerical/ Secretarial	Crafts/ Mechanical	Operatives	Labor	Service Workers	Percent of labor force	Percent of popu- lation
East Boston	4	3	5	11	6	16	5	5	6
Charlestown	3	2	3	1	1	5	2	2	2
South Boston	2	3	6	5	6	10	4	5	5
Central	6	2	3	2	3	*	4	4	4
Back Bay-	10	14	3	1	*	7	2	5	5
Beacon Hill									
South End	6	6	1	2	3	*	6	4	4
Fenway-Kenmore	7	7	5	6	3	3	6	5	5
Allston-	21	21	17	13	3	*	14	15	14
Brighton									
Jamaica Plain	8	9	6	3	10	10	9	7	7
Roxbury	6	4	8	10	12	*	12	8	9
North Dorchester	2	2	6	5	5	3	3	4	5
South Dorchester	6	10	12	11	17	23	11	10	10
Mattapan	3	3	6	9	15	10	8	7	6
Roslindale	4	4	7	10	5	10	6	6	5
West Roxbury	7	5	6	6	5	*	3	6	6
Hyde Park	6	6	7	6	5	3	6	6	6
BOSTON	100	100	100	100	100	100	100	100	100
N cases =	655	131	372	144	174	31	329	1835	3256

Notes: Based on 1,835 observations (weighted).

* Indicates less than 0.5 percent.

"N cases" indicates number of cases in sample.

Columns may not sum to 100 percent due to rounding.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.
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III. Industry

The industrial mix among Boston residents underwent a change between 1980 and 1985*. Though comparisons of 1985 to earlier data are made difficult by the addition of a "self-employed" category in 1985, many of the shifts continued trends noticeable since 1970. Manufacturing and trade continued to decline although at a much slower pace. Business services continued to grow (from 4 percent in 1970 to 6 percent in 1985), as did government and miscellaneous services.** In fact, the latter doubled its share of employed residents between 1970 and 1985. Professional and social services declined within the total industry mix from 32 percent to 21 percent. Finance, insurance and real estate (F.I.R.E.) still maintained about a 9 percent share since 1970. See Table 21.***

Industry by race and ethnic origin

Whites were over-represented (in relation to their share of the labor force) in six industries: construction, trade, F.I.R.E., business and repair services, entertainment and self-employment. Blacks were under-represented in construction, trade, business and repair services and self-employment. Asians, although accounting for only 5 percent of the labor force, comprised 10 percent of people employed in trade and 12 percent of those in

*Survey respondents indicated the industry of their present employer or of their last employer if they were not working at the time the survey was taken.

**In discussing services it helps to differentiate between service industries and service occupations. Service industries are of three kinds: professional, business and miscellaneous. Professional services include such fields as legal, medical, financial and educational services. Business services include advertising, data processing and accounting. Miscellaneous services encompass recreational and amusement establishments, barber and beauty shops and repair services. On the other hand, service occupations are semi- or low- skilled jobs, e.g. building custodians, bartenders, nursing aides, guards and cosmetologists.

***Note that data on Boston workers refer to Boston residents, regardless of place of work, rather than to persons who work in Boston but may live elsewhere. An analysis of data for residents by place of work is included in

miscellaneous service industries. Hispanic residents also boasted a greater-than-proportional share in eight industries, ranging from miscellaneous services to professional and social services. See Table 22.

Approximately one-fifth of employed white Bostonians held jobs in professional and social services in 1985, compared to 27 percent of resident Asians and 26 percent each of blacks and Hispanics. Manufacturing and trade also employed sizable shares of all racial and/or ethnic groups. See Table 23.

Industry by sex

In 1985 the city's labor force was evenly split between men and women, but only a few industries even approached that distribution. Trade came closest to the overall average, showing a 53-47 percent split. The largest disparity by sex, when looking at employment by industry, was for construction, in which 96 percent of the jobs were filled by men. Still, only 6 percent of men in Boston held construction jobs. Manufacturing was the major industry of employment among male residents in 1985; for women, the prime sources of work were the professional and social services. Trade placed a strong second for both men and women. See Table 24.

Overall, opportunities for male labor force participants were more diverse than for women, but nearly half were employed in manufacturing, trade and the professional and social services. Women were dispersed in a different pattern across the industry-spectrum, but tended to be concentrated in larger proportions in more industries than men--e.g., in manufacturing, trade, F.I.R.E., government and professional and social services. See Table 25.

Industry by age

Although 45 percent of Boston's population in 1985 was under 35 years old, 60 percent of the labor force was under 35 because of the increased labor force participation among younger residents. In all but four industries the proportion of workers under age 35 equalled or exceeded that figure. The only industries with sizable shares of workers aged 55 or more were miscellaneous services and government. Among the self-employed the largest group was aged 35-44 years. Self-employment was the only industry in which the 35-44 year-old cohort preponderated in 1985. In all others either of the two youngest cohorts did (usually the 25-29 year-olds).

Professional/social services and manufacturing were two of the three primary industries of employment for every age-cohort in 1985. The third main industry varied from trade (16-29 year-olds) to self-employment (35-44 year-olds) to government (30-34 and 55 or over). See Tables 26 and 27.

Industry Tables

Table 21. Distribution of Employed Boston Residents,
Within Industries, 1985, 1980 and 1970
(in percent)

	1985 ----	1980 ----	1970 ----
Construction	3	3	4
Manufacturing	14	14	18
Transportation/ Public Utilities	5	7	8
Trade	15	17	19
F.I.R.E.	8	9	9
Business & Repair Services	6	5	4
Professional & Social Services	21	32	25
Miscellaneous Services	9	4	4
Government	11	8	7
Self-employment	7	NA	NA
Total	100	0	100

Note: 1985 data based on 1,849 observations (weighted).

Sources: Boston Redevelopment Authority and Neighborhood
Development and Employment Agency Household Survey,
conducted by the Center for Survey Research, 1985.
U.S. Bureau of the Census, Census of Population, 1980.
U.S. Bureau of the Census, Census of Population, 1970.

Table 22. Industry of Employed Residents, 16 Years and Over, by Race and Ethnic Origin, 1985
(in percent)

	White	Black	Asian	Hispanic/ Other	Total	
	-----	-----	-----	-----	-----	-----
Construction	82	10	*	7	100	
Manufacturing	61	27	5	8	100	24
Transportation/ Public Utilities	66	31	2	1	100	9
Trade	71	14	10	5	100	28
F.I.R.E.	76	17	2	6	100	18
Business & Repair Services	84	12	3	1	100	18
Professional & Social Services	61	26	6	7	100	30
Entertainment	69	20	*	11	100	8
Miscellaneous Services	55	26	12	7	100	8
Government	66	25	2	7	100	1
Self-employment	79	14	2	5	100	1
TOTAL	68	21	5	6	100	18

Notes: "Trade" includes food stores and restaurants.
Rows may not sum to 100% due to double-counting of Hispanics
Based on 1,843 observations (weighted).
* Indicates less than 0.5 percent.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 23. Distribution of Employed Residents, by Race
and Ethnic Origin, 1985
(in percent)

	White -----	Black -----	Asian -----	Hispanic/ Other -----	Total -----
Construction	4	2	*	4	3
Manufacturing	12	17	14	17	13
Transportation/ Public Utilities	5	8	2	1	5
Trade	16	11	32	13	16
F.I.R.E.	9	7	3	7	3
Business & Repair Services	8	3	4	1	6
Professional & Social Services	19	26	27	26	22
Entertainment	5	5	*	8	5
Miscellaneous Services	3	5	10	4	4
Government	10	13	5	12	11
Self-employment	9	5	4	6	7
Total	100	100	100	100	100
N cases =	1260	389	85	115	1848

Notes: "Trade" includes wholesale and retail, as well as grocers and restaurants.

Columns may not total 100 % due to rounding.

Based on 1,848 observations (weighted).

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 24. Industry of Resident Workers, by Sex, 1985
(in percent)

	Male ----	Female -----	Total -----	N ----
Construction	96	4	100	63
Manufacturing	62	38	100	252
Transportation/ Public Utilities	68	32	100	97
Trade	53	47	100	289
F.I.R.E.	38	62	100	155
Business & Repair Services	55	45	100	113
Professional & Social Services	32	68	100	400
Entertainment	55	45	100	90
Miscellaneous Services	55	45	100	70
Government	44	56	100	196
Self-employment	58	42	100	136
Total	51	49	100	1859

Notes: Based on 1,859 observations.

"N" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development
and Employment Agency Household Survey, conducted by the
Center for Survey Research, 1985. hhind/aflal1

Table 25. Distribution of Industries by Sex of Resident Employees, for Boston, 1985
(in percent)

	Male ----	Female -----	Total -----
Construction	6	*	3
Manufacturing	17	10	14
Transportation/ Public Utilities	7	3	5
Trade	16	15	16
F.I.R.E.	6	10	8
Business & Repair Services	7	6	6
Professional & Social Services	14	30	22
Entertainment	5	5	5
Miscellaneous Services	4	3	4
Government	9	12	11
Self-employment	8	6	7
Total	100	100	100
N cases =	939	920	1859

Notes: Based on 1,859 observations (weighted).
"N cases" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research.
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	16-19	20-24	25-29	30-34	35-44	45-54	55-64	65+	Total	N
Construction	5	26	22	10	17	10	8			63
Manufacturing	3	17	19	13	21	13	10	4	100	251
Transportation & Public Utilities	2	27	12	15	23	15	7	1	100	97
Trade	13	32	19	9	8	10	6	3	100	289
F.I.R.E.	3	27	30	11	19	6	4	2	100	156
Professional & Social Services	5	19	19	18	19	13	5	3	100	397
Business & Repair Services	7	34	27	9	12	7	2	3	100	113
Entertainment	6	30	15	14	19	10	4	2	100	91
Miscellaneous Services	5	16	23	11	15	13	15	3	100	69
Government	2	15	11	17	24	14	12	5	100	195
Self-employment	1	13	22	8	37	10	6	4	100	134
Total	5	22	20	13	19	11	7	3	100	1852
Proportion of Workers	5	23	20	13	19	11	7	3	100	

Notes: F.I.R.E. stands for finance, insurance and real estate.

Rows may not total 100 percent due to rounding.

These cohorts total 83 percent of the population. The remainder are under 16.

Based on 1,852 observations (weighted).

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

hhind/al144

Table 27. Distribution of Industries of Employed Residents, by Age, 1985
(in percent)

	16-19	20-24	25-29	30-34	35-44	45-54	55-64	65+	Total
Construction	3	4	4	3	3	3	4	2	3
Manufacturing	9	10	13	13	15	16	19	18	14
Transportation & Public Utilities	2	6	3	6	6	7	5	1	5
Trade	41	22	15	11	7	14	13	16	16
F.I.R.E.	4	10	13	7	7	8	4	4	4
Professional & Social Services	19	18	21	29	21	24	17	20	21
Business & Repair Services	8	9	8	4	4	4	2	5	6
Entertainment	5	7	4	6	5	4	3	4	5
Miscellaneous Services	4	3	4	3	3	4	8	4	4
Government	3	7	6	14	14	13	18	18	11
Self-employment	1	4	8	4	14	7	6	9	7
Total	100	100	100	100	100	100	100	100	100
N cases =	93	416	362	239	209	352	209	125	1852

Notes: Columns may not total 100 percent due to rounding.
Based on 1,852 observations (weighted).

Source: Boston Redevelopment Authority and Neighborhood Development and Employment
Agency Household Survey, conducted by the Center for Survey Research, 1985.

IV. Educational Attainment

To some degree, the amount of schooling Boston residents and Boston resident workers have completed determines their labor force participation and occupation. Remarkable change occurred in the city between 1980 and 1985, in tandem with, and contributing to, the revitalized economy. As the economic base has changed, education has become more necessary than ever, as many of the growth industries have been services (business, financial, legal) that run on specific, specialized knowledge and training.

A higher proportion of adults living in Boston had completed high school at the time of the survey than in 1980 (78% vs. 68%). This statement holds true for most city neighborhoods; the proportions of high school graduates in Fenway-Kenmore and Mattapan remained relatively stable. These changes have resulted partly from a combination of the in-migration of young educated adults and the natural aging of the population.

Citywide, the share of residents holding college degrees also rose, from 20 percent to 28 percent, with increases noted in all neighborhoods except for the South End and North Dorchester which remained stable. In certain other districts, however, the increased proportion of college graduates is so marked that demographic factors become important. In Charlestown, for example, the share of college graduates nearly quadrupled in five years, basically because of the population moving into Monument Square and the Navy Yard to live near their professional-level jobs downtown. The proportion of college-educated adults living in Back Bay-Beacon Hill, Fenway-Kenmore and Central also rose as residents in those areas have shifted more decisively to an older, working population with the money and desire to live downtown or within short commuting distance to work, and as students have found it ever harder to afford rents there. See Table 28.

Schooling by race and ethnic origin

As noted earlier, the overall level of education among adult residents of Boston rose between 1980 and 1985. All racial and/or ethnic groups showed higher percentages of high school graduates in 1985 than in 1980. Differences in educational attainment among white and minority groups diminished, although Hispanics/others still trailed behind the other three sub-populations. See Table 29.

The drop in the proportion of whites without a high school diploma was accompanied by an increase in the share of college graduates among them. Blacks experienced a ten percentage point rise in the proportion of adults who had attended and/or completed college. Among Asians, the proportion of adults with some higher education jumped from 32 percent in 1980 to 52 percent in 1985. Hispanics/others also showed a dramatic increase in the share of college-educated adults (from 22% with some college study or a degree in 1980 to 35% in 1985). An equally instructive view of the educational differences that exist among ethnic groups in the city reveals that 17 percent of white adults had not finished high school, compared to 29 percent of Asian adults and 34 percent each of black and Hispanic adults. See Table 29.

The wide variations in educational attainment among ethnic populations evident at the lowest levels of schooling narrowed for high school graduates and residents with some college experience. One-fifth of Asian residents ended their education after high school in 1985, as did approximately one-third of the other racial/ethnic groups in the city. The proportion of residents in each group who had attended college without earning a degree fell within a narrow range (between 14% and 18%). See Table 29.

Although greater shares of each racial/ethnic group had completed college in 1985 than in 1980, the gaps between groups were wider than in 1980. In that year, the range extended from 9 percent for blacks to 24 percent for

whites. In 1985, 38 percent of Asians were college graduates, compared to 32 percent of whites and 15 percent for blacks. The educational advance of Asian adults in those five years is the most marked of any racial group. See Table 29.

Educational attainment of recent arrivals

Eighteen percent of the people who answered the questions on education and former residence had moved to Boston since 1980. Of those, 70 percent had attended college or had graduated from college. Attainment levels varied from one ethnic group to another. Among whites, for example, 40 percent of adults 16 years and older had completed college and another 44 percent had attended or were attending college. For blacks the respective rates were 35 percent and 23 percent; for Asians, 26 percent and 19 percent; and for Hispanics, 17 percent each. See Table 30.

Schooling by neighborhood

Neighborhood patterns of education varied as widely in 1985 as in 1980, with strong differences among neighborhoods and strong shifts within neighborhoods as well. The adult population in certain districts tended to be highly educated--e.g., in Central (42%), Back Bay-Beacon Hill (85%), Fenway-Kenmore (59%), Allston-Brighton (44%). See Table 31. All of these areas accommodated large proportions of unrelated individuals, either living alone or with another person or persons. (See Page 44 of Volume I). Demographic Characteristics). Residents of these neighborhoods also tended to hold white-collar jobs or to work in business or professional/social services or in finance, insurance and real estate (F.I.R.E.). See Tables 19 and 28 of this report.

In other neighborhoods, namely East and South Boston, Roxbury, North and South Dorchester and Mattapan, the proportion of college graduates ranged between 7 percent and 15 percent, compared to the citywide figure of 13 percent. Primary occupational sectors in these six districts were blue- or pink-collar with no less than 50 percent of workers employed in secretarial, clerical or crafts/mechanical positions, or as operatives or laborers in all but one of these areas. See Table 19. The largest industries of the employed were likelier to be construction, manufacturing and government for residents of these neighborhoods than for highly educated workers in the four neighborhoods mentioned earlier. See Table 18.

East Boston and Roxbury posted the highest shares of inhabitants who left school before graduation (43% and 40%, respectively). Another seven neighborhoods equalled or surpassed the citywide average. Between 24 and 43 percent of adults in East Boston, South Boston, the South End, Roxbury, South Dorchester and Mattapan did not complete high school. In some neighborhoods, between 38 and 52 percent of resident adults graduated from high school but did not pursue their education any further: East and South Boston, South and North Dorchester, Roslindale, West Roxbury and Hyde Park. See Table 31.

One-fifth of Boston adults who had received no formal schooling lived in East Boston, which houses many elderly people. Other neighborhoods with sizable shares of unschooled residents were Fenway-Kenmore, North Dorchester and Mattapan, where large groups of immigrants could be found.

Somewhat more than half of the adults in Boston who had not gone past grammar school lived in four of the city's neighborhoods: East Boston, Jamaica Plain, Roxbury and South Dorchester. Almost two-thirds of those who left school after the eighth grade lived in East and South Boston, Roxbury, South Dorchester and Mattapan. In all of these neighborhoods, the only

similarity is a high proportion (over one-third) of single women. Two housed large proportions of elderly or white residents, two were overwhelmingly minority and two were about half minority. Jamaica Plain was the only one of the six to boast a sizable foreign-language-speaking population (22% Spanish). One-third of college-educated adults resided in either Allston - Brighton or Back Bay-Beacon Hill. See Table 32.

English language proficiency

Starting from the premise that proficiency in English strongly affects one's participation and performance in the job market, we looked at a series of variables in relation to language proficiency and found little impact in most areas.

By place of residence

In a few neighborhoods where immigration is a factor in the proportion of native-speakers aged 16 and over or 25 and over, the change was more marked. East Boston, for example, housed a higher proportion of adults over 25 who were native English-speakers, suggesting that the immigrants were adolescents or in their early twenties. The remarkable shift on the neighborhood level appeared in Fenway-Kenmore where, in 1985, 72 percent of residents over 16 spoke English as their native tongue but only 60 percent of adults over 25 did. The Asian and student populations there significantly altered the linguistic make-up of the neighborhood. Over one-quarter of Fenway-Kenmore residents aged 18 or more were Asian, and one-third of the total district population was between the ages of 16 and 24. (See I. Demographic Characteristics). Furthermore, 22 percent of city residents aged 18 to 24 years lived in Fenway-Kenmore (second after Allston-Brighton) which,

combined with the concentration of Asians in the district and the fact that 79 percent of all Asian Bostonians were 25 years old or more, helps to explain the difference in language proficiency between residents 16 and over and those 25 and over. See Table 33.

The proportion of adults over 25 years who spoke English with difficulty rose to 12 percent in the South End, 15 percent in Fenway-Kenmore and 17 percent in Jamaica Plain (vs. 10%, 10% and 14%, respectively, for those 16 years and over). See Table 33.

By education

The ability to communicate in English could affect one's level of education in the U.S. Being a native speaker of English in Boston, however, was no particular asset, at the college level especially.

Half of residents aged 25 or more who experienced difficulty with English completed no more than junior high school. Sixty-two percent of this population did not finish high school, compared to one-quarter of those who were fluent in the language and one-fifth of those who were native-speakers of it. See Table 34.

Labor force participation

Participation rates by language proficiency varied slightly, but employment rates remained close for all three categories. The relatively low participation (52%) of those who were not fluent in English may also stem from other demographic factors, such as age and family composition. People not fluent in English also experienced higher unemployment than did native English-speakers and non-native fluent English-speakers. Labor force participation among the latter two groups differed, but unemployment did not. See Table 35.

Educational Attainment Tables

Table 28. Educational Attainment for Adults 25 Years and Over,
by Neighborhood, 1980 and 1985
(in percent)

	1980		1985		N
	High School Graduate	College Graduate	High School Graduate	College Graduate	
East Boston	48	7	57	8	129
Charlestown	64	10	83	37	45
South Boston	62	7	70	13	108
Central	68	34	81	42	91
Back Bay-	94	62	98	85	96
Beacon Hill					
South End	66	30	74	30	83
Fenway-Kenmore	85	41	82	59	79
Allston-Brighton	79	33	91	44	222
Jamaica Plain	66	24	76	29	150
Roxbury	55	8	61	14	183
North Dorchester	59	8	73	7	93
South Dorchester	66	11	69	15	138
Mattapan	68	8	66	8	119
Roslindale	68	13	89	18	104
West Roxbury	79	22	88	35	127
Hyde Park	70	12	87	24	141
BOSTON	68	20	77	28	1957

Notes: 1985 data based on 1,957 observations (weighted).
"N" indicates the number of cases in the sample.
College graduates are a subset of high school graduates.

Sources: 1980 Census of Population and Housing, Summary Tape File 3.
Boston Redevelopment Authority and Neighborhood Development and
Employment Agency Household Survey, conducted by the Center for
Survey Research, 1985
educ/allar37

Table 29. Highest Grade of School Completed, by Race and Ethnic Origin,
for Residents 25 Years and Over, 1985 and 1980
(In percent)

	White		Black		Asian		Hispanic/ Other		Total	
	1985	1980	1985	1980	1985	1980	1985	1980	1985	1980
Less than high school diploma	17	28	34	39	29	45	34	52	23	32
High school graduate	35	35	33	39	20	23	31	26	34	35
1-3 years college	16	13	18	14	13	10	16	10	16	13
College graduate	32	24	15	9	38	22	19	12	28	20
Total	100	100	100	100	100	100	100	100	100	100
N cases =	1289		421		95		120		1925	

Notes: 1985 data based on 1,925 observations (weighted).
Columns may not total 100 percent due to rounding.

"N cases" indicates number of cases in sample.

Sources: Boston Redevelopment Authority and Neighborhood Development and Employment
Agency Household Survey, conducted by the Center for Survey Research, 1985.
1980 Census of Population and Housing, Summary Tape File 3.

Table 30. Educational Attainment by Race and Ethnic Origin, by Length of Residence in Boston, 1985
(in percent)

	Less than High school		High school		Some College		College Graduate		Total		N cases	
	Before 1980	1981 or later	Before 1980	1981 or later	Before 1980	1981 or later	Before 1980	1981 or later	Before 1980	1981 or later	Before 1980	1981 or later
White	21	4	31	12	17	44	31	40	100	100	431	136
Black	36	10	35	32	20	23	9	35	100	100	428	31
Asian	27	41	30	15	13	19	30	26	100	100	37	27
Hispanic/ Other	46	33	30	30	18	17	6	17	100	100	104	21
Total	31	13	32	17	18	35	19	35	100	100	1000	221

Notes: Based on 1,221 observations (weighted).
"N cases" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency
Household Survey, conducted by the Center for Survey Research, 1985.

educse/az1bj25

Table 31. Highest Grade of Schooling Completed, within Neighborhoods,
for Adults 25 Years or More, 1985
(in percent)

	TOTAL	Less than High School	High School Graduate	Some College	College Graduate
East Boston	100	43	38	12	8
Charlestown	100	17	28	19	37
South Boston	100	30	45	12	13
Central	100	19	26	13	42
Back Bay-	100	2	3	9	85
Beacon Hill					
South End	100	27	24	19	30
Fenway-Kenmore	100	18	10	14	59
Allston-Brighton	100	9	32	14	44
Jamaica Plain	100	24	28	20	29
Roxbury	100	40	32	15	14
North Dorchester	100	27	44	23	7
South Dorchester	100	31	39	15	15
Mattapan	100	35	38	19	8
Roslindale	100	12	52	18	18
West Roxbury	100	12	38	16	35
Hyde Park	100	14	45	18	24
BOSTON	100	23	34	16	28

Notes: Based on 1,957 observations (weighted).
"N" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development and
Employment Agency Household Survey, conducted by the Center for
Survey Research, 1985. educse/as388

Table 32. Distribution of Highest Grade of Schooling Completed,
by Neighborhood, for Adults 25 Years or Over, 1985
(in percent)

	Total	Less than High School	High School Graduate	Some College	College Graduate
East Boston	7	12	7	5	2
Charlestown	2	2	2	3	0
South Boston	6	7	7	4	3
Central	5	4	4	4	7
Back Bay- Beacon Hill	5	*	*	3	15
South End	4	5	3	5	5
Fenway-Kenmore	4	3	1	4	9
Allston-Brighton	11	5	11	10	13
Jamaica Plain	8	8	6	10	3
Roxbury	9	16	9	9	5
North Dorchester	5	6	6	7	1
South Dorchester	10	13	11	9	5
Mattapan	6	9	7	7	2
Roslindale	5	3	3	6	4
West Roxbury	6	3	7	7	3
Hyde Park	7	4	10	8	6
BOSTON	100	100	100	100	100
N cases =	1957	447	661	310	540

Notes: Based on 1,957 observations (weighted).

"N cases" indicates the number of cases in the sample. —

Source: Boston Redevelopment Authority and Neighborhood Development and
Employment Agency Household Survey, conducted by the Center for
Survey Research, 1985. educse/aslax35

Table 33. English Language Proficiency by Neighborhood,
for Residents 16 Years and Over, 1985
(in percent)

Neighborhood	Foreign-language Speaker, Speak English well	Foreign-language Speaker, Speak English poorly	Native English- Speaker	Total	N
East Boston	9	7	84	100	311
Charlestown	1	*	99	100	55
South Boston	8	2	91	100	127
Central	29	14	57	100	95
Back Bay-	6	*	94	100	128
Beacon Hill					
South End	6	10	85	100	105
Fenway-Kenmore	18	10	72	100	141
Allston-Brighton	12	3	85	100	370
Jamaica Plain	8	14	78	100	198
Roxbury	13	6	81	100	236
North Dorchester	16	5	80	100	132
South Dorchester	8	7	85	100	263
Mattapan	17	6	77	100	165
Roslindale	12	4	84	100	138
West Roxbury	12	5	83	100	159
Hyde Park	13	3	84	100	167
BOSTON	12	6	82	100	2644

for Residents 25 Years and Over, 1985.

East Boston	8	5	86	100	130
Charlestown	1	*	99	100	46
South Boston	9	2	89	100	108
Central	28	15	57	100	87
Back Bay-	7	*	93	100	97
Beacon Hill					
South End	6	12	82	100	84
Fenway-Kenmore	24	15	60	100	78
Allston-Brighton	12	5	83	100	216
Jamaica Plain	6	16	78	100	150
Roxbury	11	8	82	100	179
North Dorchester	15	5	80	100	103
South Dorchester	7	8	85	100	190
Mattapan	16	7	76	100	122
Roslindale	15	4	81	100	106
West Roxbury	13	6	80	100	127
Hyde Park	13	4	84	100	140
BOSTON	12	7	81	100	1955

Notes: Based on 2,644 and 1,959 observations (weighted).

* Less than 0.5 percent.

"N" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development
and Employment Agency Household Survey, conducted by the
Center for Survey Research, 1985.

Table 34. Distribution of Educational Attainment by English Language Proficiency, for Residents 25 Years and Over, 1985.

	Foreign-language Speaker, Speak English well	Foreign-language Speaker, Speak English poorly	Native English- Speaker	Total
	-----	-----	-----	-----
Less than high school	26	61	19	23
High school graduate	28	23	36	34
Some college	17	5	16	16
College graduate	29	11	29	28
Total	100	100	100	100
N cases =	229	134	1572	1934

Notes: Based on 1,934 observations (weighted).

"N cases" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985. elp/i60o87

Table 35. Labor Force Participation by English Language Proficiency, for Residents 16 Years and Over, 1985

	Foreign-language Speaker, Speak English well	Foreign-language Speaker, Speak English poorly	Native English- Speaker	Total
	-----	-----	-----	-----
Not in Labor Force	43	48	31	33
In Labor Force	57	52	69	67
Employed	53	48	65	62
Unemployed *	4	5	4	4
Total	100	100	100	100
N cases =	303	150	2129	2581

Notes: Based on 2,581 observations (weighted).

* NOT an unemployment rate.

"N cases" indicates number of cases in sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985. elp.a152q177

V. Self-Employment

Self-Employment by race and ethnic origin

The self-employed population of Boston in 1985, while small, had a distinctive character. Only 7 percent of labor force participants in the city worked for themselves. Of those, 79 percent were white, although whites accounted for only 68 percent of the labor force. Another 14 percent of self-employed residents were black. The established racial and ethnic groups-- whites and blacks-- were more likely to be self-employed than more recently arrived groups such as Asians or Hispanics. In fact, 92 percent of whites worked for someone else compared to 97 percent of Asians. See Tables 36a and 36b.

Self-Employment by sex

Male residents were self-employed at a slightly higher rate than female residents in 1985 (8% vs. 6%). Furthermore, 58 percent of self-employed residents were male, although the rest of the employed were split evenly among males and females in accordance with the overall breakdown of the labor force by sex. See Tables 37A and 37B.

Self-Employment by age

Self-employment provided a notable source of work for Boston residents of certain ages only: 14 percent of adults between 35 and 44. See Table 38A. The largest share of self-employed residents in 1985 were aged 35 to 44 (37%) or 25 to 34 (30%). Members of the remaining cohorts worked for themselves in approximately the same proportion as their share of the total employed labor force. See Table 38B.

Self-Employment by neighborhood

In only three of the city's sixteen districts did 10 percent or more of working people create their own jobs--in Allston-Brighton (12%), Back Bay-Beacon Hill (10%), and Jamaica Plain (10%). These figures are significant in the latter two cases: only 5 percent of Boston's employed lived in Back Bay-Beacon Hill, with 7 percent in Jamaica Plain. Allston-Brighton, housed the largest share of self-employed workers in the city, but it did not contain a disproportionately large share of the self-employed and, in fact, housed a somewhat lower concentration of self-employed than wage and salary workers. South Dorchester, with 10 percent of the employed and 10 percent of the wage and salary workers, housed only 4 percent of the self-employed in the city, giving it the lowest proportional share of self-employed residents citywide. See Table 39.

Self-Employment by place of work

Patterns of self-employment by place of work reflect a certain logic: 15 percent of residents who worked within their home neighborhood were self-employed, as people who operate their own businesses tend to locate close to home or at home. Likewise, 23 percent of workers who had no fixed place of work were self-employed, suggesting that many are consultants, contractors or itinerant workers. See Table 40.

One-third of the self-employed in Boston in 1985 worked in their home districts, another fifth commuted to the inner ring of suburban towns and nearly the same proportion worked downtown. See Table 41. Nearly two-thirds of the residents who worked at home were self-employed, but only 9 percent of self-employed Bostonians worked at home. Over half of self-employed residents drove to work and almost a quarter rode the subway or bus. See Tables 41 and 42.

Fit between jobs and skills

Predictably, the self-employed saw a greater fit between their work and their abilities than did wage and salary workers. Over three-quarters of self-employed workers believed that their jobs suited their skills very well, compared to only 60 percent of those employed by others. See Tables 43A and 43B.

Self-Employment Tables

Table 36a. Distribution of Self-Employment by Race and Ethnic Origin, for Residents 16 Years and Over, 1985
(in percent)

	Work for self -----	Work for someone else -----	Total -----
White	79	67	68
Black	14	22	21
Asian	2	5	5
Hispanic/ Other	5	6	6
Total	100	100	100
N cases =	136	1743	1879

Notes: Based on 1,879 observations (weighted).
"N" indicates number of cases in the sample.

Table 36b. Self-Employment by Race and Ethnic Origin, for Residents 16 Years and Over, 1985
(in percent)

	Work for self -----	Work for someone else -----	Total -----	N -----
White	8	92	100	1279
Black	5	95	100	399
Asian	3	97	100	86
Hispanic/ Other	6	94	100	115
Total	7	93	100	1879

Notes: Based on 1,879 observations (weighted).
"N" indicates number of cases in sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 37a. Self-Employment by Sex, for Employed Residents 16 Years and Over, 1985
(in percent)

	Work for self -----	Work for someone else -----	Total -----	N -----
Male	8	92	100	957
Female	6	94	100	933
Total	7	93	100	1890

Notes: Based on 1,890 observations (weighted).

"N" indicates the number of cases in the sample.

Table 37b. Distribution of Self-Employment by Sex, for Residents 16 Years and Over, 1985

	Work for self -----	Work for someone else -----	TOTAL -----
Male	58	50	51
Female	42	50	49
Total	100	100	100
N cases =	136	1754	1890

Notes: Based on 1,890 observations (weighted).

"N cases" indicates number of cases in sample.

Source: Boston Redevelopment Authority and Neighborhood Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 38a. Self-Employment by Age, for Residents, 1985
(in percent)

	Work for self	Work for someone else	Total	N
	-----	-----	-----	-----
16 - 24 years	3	97	100	519
25 - 34 years	7	93	100	616
35 - 44 years	14	86	100	355
45 - 54 years	6	94	100	211
55 - 64 years	6	94	100	126
65 + years	9	91	100	58
Total	7	93	100	1883

Table 38b. Distribution of Self-Employment by Age,
for Residents, 1985
(in percent)

	Work for self	Work for someone else	Total
	-----	-----	-----
16 - 24 years	13	29	28
25 - 34 years	30	33	33
35 - 44 years	37	17	19
45 - 54 years	10	11	11
55 - 64 years	6	7	7
65 + years	4	3	3
Total	100	100	100
N cases =	134	1749	1883

Notes: Based on 1,883 observations (weighted).
"N" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood
Development and Employment Agency Household
Survey, Center for Survey Research, 1985

Table 39. Distribution of Self-Employment for Residents.
by Neighborhood, 1985.

	Work for self	Work for someone else	Total employed	Total labor force*
	-----	-----	-----	-----
East Boston	6	5	5	5
Charlestown	3	2	2	2
South Boston	3	4	5	4
Central	5	4	4	4
Back Bay- Beacon Hill	10	5	5	5
South End	7	4	4	5
Fenway-Kenmore	6	6	6	5
Allston- Brighton	12	16	15	15
Jamaica Plain	10	7	7	7
Roxbury	9	8	8	8
North Dorchester	6	4	4	4
South Dorchester	4	11	10	10
Mattapan	6	6	6	7
Roslindale	7	5	6	6
West Roxbury	6	6	6	6
Hyde Park	3	6	6	5
BOSTON	100	100	100	100
N cases =	136	1757	1893	2650

Notes: data based on 1,893 observations (weighted).

* data based on 2,650 observations (weighted).

Source: Boston Redevelopment Authority and Neighborhood Development
and Employment Agency Household Survey, conducted by the
Center for Survey Research, 1985. trans/arlav49

Table 40. Distribution of Self-Employment by Place of Work,
for Residents, 1985
(in percent)

	Work for self -----	Work for someone else -----	Total -----	N ---
East Boston/ Charlestown/ South Boston	3	97	100	73
Central	7	93	100	313
Back Bay- Beacon Hill/ Fenway-Kenmore	6	94	100	132
Allston-Brighton/ Jamaica Plain/ Hyde Park/ West Roxbury/Roslindale	1	99	100	90
South End/Roxbury/ Dorchester/ Mattapan	5	95	100	159
Same Neighborhood	15	85	100	267
Boston, NA Part/ No one place	23	77	100	65
Inner Suburbs	7	93	100	360
Outer Suburbs	3	97	100	73
Outside SMSA	3	97	100	48
Total	7	93	100	1583

Notes: Based on 1,583 observations (weighted).

Source: Boston Redevelopment Authority and Neighborhood
Development and Employment Agency Household Survey,
conducted by the Center for Survey Research, 1985.

Table 41. Self-Employment by Means of Transportation to Work,
for Boston Residents, 1985
(in percent)

	Work for self -----	Work for someone else -----	Total -----	N -----
Car, Van, Carpool	8	92	100	757
M.B.T.A.	5	95	100	505
Walked	6	94	100	225
Other means	38	62	100	40
Total	7	93	100	1527

Notes: Based on 1,527 observations (weighted).

"N" indicates the number of cases in the sample.

"Other means" includes bicycles, cabs or working at home.

Nearly two-thirds of this group work at home.

Table 42. Distribution of Means of Transportation to Work,
by Self-Employment, for Residents, 1985
(in percent)

	Work for self -----	Work for someone else -----	Total -----
Car, Van, Carpool	52	49	50
M.B.T.A.	23	34	33
Walked	12	15	15
Other means	13	2	3
Total	100	100	100
N cases =	112	1415	1527

Notes: Based on 1,527 observations (weighted).

"Other means" includes bicycles, cabs or working at home.

Nearly two-thirds of this group work at home.

Source: Boston Redevelopment Authority and Neighborhood Development
and Employment Agency Household Survey, conducted by the
Center for Survey Research, 1985.

trans/n1091

Table 43a. Job-Fit to Skills for Employed Residents,
by Nature of Employer, 1985
(in percent)

	Work for self -----	Work for someone else -----	Total -----	N -----
Job fits skills well	9	91	100	1159
Job fits skills fairly well	5	95	100	554
Job fits skills poorly	3	97	100	158
Total	7	93	100	1871

Notes: Based on 1,871 observations (weighted).
"N" indicates the number of cases in the sample.

Table 43b. Distribution of Job-Fit to Skills for Employed
Residents, by Nature of Employer, 1985
(in percent)

	Work for self -----	Work for someone else -----	Total -----
Job fits skills well	77	61	62
Job fits skills fairly well	19	30	30
Job fits skills poorly	4	9	8
Total	100	100	100
N cases =	133	1738	1871

Notes: Based on 1,871 observations (weighted).
"N cases" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development
and Employment Agency Household Survey, conducted by
the Center for Survey Research, 1985. trans/n163r211

VI. Employment by Place of Work

To get a fuller employment picture we present a series of tables considering data on place of work for occupation, industry, education and income. The following section on "Journey to Work" dovetails with this present chapter.

The majority of Boston residents worked in one of three areas: the inner suburban towns (23%), downtown (20%) or within their district of residence (17%). The agglomerated area of the South End-Roxbury-Dorchester-Mattapan captured another 10 percent of employed Bostonians. See Table 44.

By occupation

The jobs for which residents commuted outside of town were primarily professional/managerial/technical (37%), although office and services jobs accounted for equal proportions (18% each) of the total. Jobs downtown fell into three categories: professional/managerial/technical (35%), clerical (33%) and all others (32%). A third of the people who worked in their own neighborhood held professional/managerial/technical jobs and 22 percent of them held jobs as laborers or service workers. Another fifth were secretaries or clerks. Commuters to the outer ring of suburbs held jobs as professionals (37%), craftsmen and mechanical workers (16%) or as operatives (23%). Professionals constituted 52 percent of those residents who worked outside of the metro region, although services workers were also well-represented (22%). Professionals/technicians/managers and services workers made up the bulk (57%) of the group who lacked a fixed place of employment. See Table 45.

The Back Bay-Beacon Hill/Fenway-Kenmore area boasted the highest concentration of professionals (50%). Another quarter of the people who worked there held secretarial/clerical jobs, with a further 19 percent holding labor and services jobs. This three-pronged occupational division prevailed in nearly all geographical regions. The combined area of East Boston, Charlestown and South Boston provided the smallest share of professional jobs held by city residents (26%). The distribution of laborers and service workers within the city was fairly uniform (around 20%) except in the western and southwestern districts, where it rose to 28 percent, and in the downtown, where it dropped to 12 percent. See Table 45.

The occupational structure of employment in home neighborhoods and in unspecified parts of town was primarily split in 1985 between professional, managerial and technical jobs, service jobs and clerical work. In the suburbs, the jobs also broke down into three main occupational sectors-- professional/managerial/technical, clerical or operatives. See Table 45.

The proportion of residents who worked in their home districts in 1985 was lower than in 1980 in all but three neighborhoods. (In a fourth, Fenway-Kenmore, a change cannot be determined because the district was included with Back Bay-Beacon Hill in 1980.) Some of the increase in East and South Boston may be due to sampling variability, but in Central the change stems from a growing economy and shifting demographics. Many neighborhood residents have found work downtown instead of in their home neighborhoods. The largest declines in the proportion of people who worked close to home came in Charlestown, Back Bay-Beacon Hill, Allston-Brighton, South Dorchester and Roxbury, in all of which more residents have found jobs downtown since 1980. In several districts, in fact, the share of residents who are employed downtown has doubled since 1980. See Table 46.

Two neighborhoods illustrate the changing employment and commuting patterns in Boston. People tend to live in Central because they work there: 61 percent of downtown residents worked in the area in 1985, and another 9 percent held jobs in Back Bay-Beacon Hill/Fenway-Kenmore. In 1980, only 5 percent of Central Boston residents worked within this area. The proportion of Central residents working elsewhere in Boston or outside of the metropolitan area halved over those five years. The South End presents a nearly contradictory case: although the proportion of those working within the neighborhood dropped only slightly between 1980 and 1985, the share employed downtown tripled and the share commuting beyond the metropolitan region doubled over that same period. By 1985, only 19 percent of South End residents worked in town but outside of the South End itself or the downtown, compared to 46 percent in 1980. See Table 46.

Residents of the southwestern suburban neighborhoods (Hyde Park and West Roxbury) seemed to be working outside of Boston in greater numbers than in 1980. In the southeastern districts (Roxbury, Jamaica Plain, Mattapan, Dorchester), on the other hand, residents still tended to work in the city, but were more likely to work outside of their own districts than in 1980.

East Boston, Charlestown and South Boston, which have traditionally been alike economically and socially, still showed similarities in 1985, but demographic changes had occurred within and among the three areas as a result of the city's changing economy. Many East and South Boston inhabitants were still employed in those neighborhoods in 1985, but the proportion of Charlestown residents who were not "local", and who worked downtown or in the suburbs, rose between 1980 and 1985. In both Charlestown and South Boston one-third of employed residents were employed in the Central district and a larger share commuted to the suburbs than in 1980. See Table 46.

By industry

The two prime locations of employment in 1985 were the inner suburbs and the downtown area. Twenty-eight percent of those employed in East and South Boston and Charlestown worked in the manufacturing and construction industries. Finance, insurance and real estate employed 21 percent of those working in the central neighborhood. In the remaining 12 neighborhoods, professional and social services accounted for over one-third of the jobs. See Table 47.

For workers employed in their own neighborhoods, the industry distribution is more evenly split between trade and professional or social services. A similar pattern manifests itself outside of Boston too--the largest industries in the inner suburbs in 1985 were manufacturing and construction, professional and social services, and business and miscellaneous services. Manufacturing and construction predominated even more noticeably in the outer suburbs. Furthermore, 28 percent of residents who commuted outside of the Boston metro area held manufacturing or construction jobs. See Table 47.

Over a quarter of the manufacturing and construction jobs held by residents were located within the inner suburbs of Boston; another 15 percent were found either in the outer suburbs or outside of the metropolitan region. Most industries which employed Boston residents exhibited a bi-polar structure, with a large proportion of jobs to be found in the inner suburbs and a similar share in one or the other areas of town. Trade positions were concentrated in the inner suburbs (28%), in home neighborhoods (22%) and downtown (18%). A quarter of the professional and social services jobs were located in Back Bay-Beacon Hill and Central and another quarter in the inner suburban towns. The sharpest dichotomy can be seen for finance, insurance and real estate jobs, half of which were situated downtown and 14 percent of which were found in inner-suburban towns. See Table 48.

By education

Nearly two-thirds (62%) of resident college graduates in Boston worked in one of three areas: Central, the inner suburbs and home neighborhoods. Another 11 percent worked in the Back Bay-Beacon Hill/Fenway-Kenmore district. Even residents who had not completed college held jobs concentrated in those areas (64%). See Table 49.

Forty-three percent of employees in Back Bay-Beacon Hill/Fenway-Kenmore jobs were college-educated, which places them first among Boston neighborhoods. Residents employed in the suburbs and Central rank second and third. Overall, one-third of employed resident Bostonians held college degrees. See Table 50.

By income

Despite the variety of occupations, industries and places of work of Boston residents, their incomes in 1985 showed surprisingly similarities. No less than 64 percent of the labor force surveyed earned under \$20,000/year. In five of the ten geographical areas the share falling below this figure exceeded 70 percent. The highest proportions of workers earning less than \$10,000 were employed either within their home districts or in an unidentified part of the city, while the largest share of people earning over \$30,000 worked outside of the SMSA altogether. See Table 51.

Place of Work Tables

Place of Work within the Boston SMSA

Inner Suburbs

Arlington
Belmont
Beverly
Braintree
Brookline
Cambridge
Chelsea
Dedham
Everett
Lexington
Lynn
Malden
Marblehead
Medford
Melrose
Milton
Nahant
Newton
Quincy
Revere
Salem
Saugus
Somerville
Stoneham
Swampscott
Wakefield
Waltham
Watertown
Winchester
Winthrop
Woburn

Outer Suburbs

Ashland
Bedford
Burlington
Canton
Cohasset
Concord
Danvers
Dover
Duxbury
Framingham
Hamilton
Hanover
Hingham
Hull
Lincoln
Lynnfield
Manchester
Marshfield
Medfield
Middleton
Natick
Norfolk
Needham
North Reading
Norwell
Norwood
Peabody
Pembroke
Randolph
Reading
Rockland
Scituate
Sharon
Sherborn
Sudbury
Topsfield
Walpole
Wayland
Wellesley
Wenham
Weston
Westwood
Weymouth
Wilmington

Table 44. Distribution of Employed Residents
by Place of Work, 1985
(in percent)

East Boston/ Charlestown/ South Boston	5
Central	20
Back Bay- Beacon Hill/ Fenway-Kenmore	8
Allston-Brighton/ Jamaica Plain/ Hyde Park/ West Roxbury/Roslindale	6
South End/Roxbury/ Dorchester/ Mattapan	10
Same Neighborhood	17
Boston, NA Part/ No one place	4
Inner Suburbs	23
Outer Suburbs	5
Outside SMSA	3
Total	100

Note: Based on 1,597 observations (weighted).

Source: Boston Redevelopment Authority and Neighborhood
Development and Employment Agency Household
Survey, conducted by the Center for Survey
Research, 1985. trans/anlaq42

Table 45. Place of Work of Employed Residents by Occupation, 1985
(in percent)

	Professional Technical & Managerial	Sales	Clerical, Secretarial	Crafts, Mechanical	Operatives	Laborers, Service Workers	Total	N
East Boston, Charlestown, South Boston	26	5	23	14	17	18	100	76
Central	35	11	33	2	6	12	100	296
Back Bay- Beacon Hill, Fenway-Kenmore	50	3	24	4	1	19	100	131
Allston- Brighton, Jamaica Plain, West Roxbury, Roslindale, Hyde Park	37	6	14	9	10	28	100	89
South End, Roxbury, Dorchester, Mattapan	36	4	25	7	10	21	100	156
Same Neigh- borhood	33	8	19	10	9	22	100	262
Boston, NA Part, No one place	32	3	11	17	16	25	100	62
Inner Suburbs	37	8	18	11	9	18	100	355
Outer Suburbs	37	7	8	15	23	13	100	71
Outside SMSA	52	7	2	11	13	22	100	46
Total	37	7	21	8	9	18	100	1542

Notes: Based on 1,542 observations (weighted).
"N" indicates number of cases in sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment
Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 47. Industry of Employed Residents by Place of Work, 1985
(in percent)

Manufacturing/ Construction	T.C.P.U.	Trade	F.I.R.E.	Professional/ Social Svcs	Business/ Misc Svcs	Govern- ment	Self- Employment	Total	N
East Boston/ Charlestown/ South Boston	23	11	4	4	8	22	4	100	78
Central	6	13	21	12	17	14	7	100	139
Back Bay- Beacon Hill/ Fenway-Kenmore	2	12	12	37	14	11	5	100	129
Dorchester-Brighton/ Jamaica Plain/ West Roxbury/ Hyde Park/ Roslindale	6	17	3	36	10	16	1	100	89
South End/ Roxbury/ Dorchester/ Mattapan	6	8	4	35	9	22	4	100	158
Same Neighborhood Boston, MA Part/ No one place	4 7	19 11	4 5	23 3	11 25	8 13	15 25	100 100	264 61
Inner Suburbs	5	18	5	23	19	4	7	100	355
Outer Suburbs	1	12	8	14	19	10	3	100	72
Outside SMSA	2	19	*	26	19	6	4	100	47
Total	6	15	8	22	15	11	8	100	1560

Notes: Based on 1,560 observations (weighted).

* Indicates less than 0.5 percent. Rows may not sum to 100 % due to rounding.

Two-thirds of "Manufacturing/Construction" responses are in manufacturing.

"N" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

hhind/jls49

Table 48. Distribution of Place of Work, for Residents, within Industries, 1985
(in percent)

	Manufacturing/ Construction	T.C.P.U.	Trade	F.I.R.E.	Professional/ Social Svcs	Business & Misc. Svcs.	Govern- ment	Self- Employed	Total
East Boston/ Charlestown South Boston	8	20	4	2	1	3	10	3	5
Central	14	21	18	49	11	22	25	17	20
Back Bay- Beacon Hill Fenway-Kenmore	4	3	7	12	14	8	8	6	8
Allston-Brighton/ Jamaica Plain West Roxbury/ Hyde Park/ Roslindale	5	6	7	2	9	4	8	1	6
South End/ Roxbury/ Dorchester/ Mattapan	10	12	6	5	17	6	21	5	10
Same Neighborhood Boston,	15	13	22	9	18	13	13	33	17
No one place	3	5	3	2	1	6	5	13	4
Inner Suburb	27	19	28	14	24	30	9	20	23
Outer Suburb	10	1	4	5	3	6	4	2	5
Outside SMSA	5	1	4	*	3	4	2	1	3
TOTAL	100	100	100	100	100	100	100	100	100
N CASES	261	86	228	129	338	232	170	119	1560

Notes: Based on 1,560 observations (weighted).

* Indicates less than 0.5 percent.

"N cases" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 49. Distribution of Place of Work by Highest Grade of School Completed, 1985
(in percent)

	<u>Less than High school</u>	<u>High School</u>	<u>Some College</u>	<u>College Graduate</u>	<u>Total</u>
East Boston/ Charlestown/ South Boston	4	8	4	3	5
Central	14	16	26	21	20
Back Bay- Beacon Hill/ Fenway-Kenmore	6	7	8	11	3
Allston-Brighton/ Jamaica Plain/ Hyde Park/ West Roxbury/Roslindale	6	7	6	5	5
South End/Roxbury/ Dorchester/ Mattapan	14	11	8	8	10
Same Neighborhood	22	17	16	16	17
Boston, NA Part/ No one place	7	5	3	2	4
Inner Suburbs	18	23	23	25	23
Outer Suburbs	5	4	4	5	4
Outside SMSA	4	1	3	5	3
Total	100	100	100	100	100
N cases =	206	519	354	510	1587

Notes: Based on 1,587 observations (weighted).

"N cases" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.

Table 50. Highest Grade of School Completed by Residents, by Place of Work, 1980
(in percent)

	Less than High school -----	High School -----	Some College -----	College Graduate -----	Total -----
East Boston/ Charlestown/ South Boston	11	56	18	18	100
Central	9	27	30	35	100
Back Bay- Beacon Hill/ Fenway-Kenmore	10	28	21	44	100
Allston-Brighton/ Jamaica Plain/ Hyde Park/ West Roxbury/Roslindale	14	40	23	26	100
South End/Roxbury/ Dorchester/ Mattapan	24	48	24	33	100
Same Neighborhood	15	33	21	31	100
Boston, NA Part/ No one place	23	41	19	20	100
Inner Suburbs	10	34	22	35	100
Outer Suburbs	12	30	22	38	100
Outside SMSA	19	13	21	52	100
Total	12	33	23	32	100

Notes: Based on 1,587 observations (weighted).
"N" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development and Employment
Agency Household Survey, conducted by the Center for Survey Research

Table 51. Income of Employed Residents, by Place of Work, 1985
(in percent)

	less than \$10,000	\$10000- \$14999	\$15000- \$19999	\$20000- \$29999	\$30000- and over	Total	N
East Boston, Charlestown, South Boston	22	14	27	23	14	100	70
Central	33	19	20	17	10	100	268
Back Bay- Beacon Hill, Fenway-Kenmore	32	22	18	20	9	100	117
Allston- Brighton, Jamaica Plain, West Roxbury, Roslindale, Hyde Park	28	25	18	21	8	100	73
South End, Roxbury, Dorchester, Mattapan	34	23	14	19	12	100	144
Same Neigh- borhood	42	17	14	15	12	100	227
Boston, NA Part, No one place	46	15	6	17	15	100	49
Suburbs	34	17	13	25	12	100	377
Outside SMSA	30	7	18	26	20	100	45
Total	34	18	16	20	12	100	1372

Notes: Based on 1,372 observations (weighted).
"N" indicates number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development and
Employment Agency Household Survey, conducted by the Center for
Survey Research, 1985.

Table 52. Distribution of Income for Employed Residents,
by Place of Work, 1985
(in percent)

	less than \$10,000	\$10000- \$14999	\$15000- \$19999	\$20000- \$29999	\$30000- and over	Total
East Boston, Charlestown, South Boston	3	4	9	7	6	5
Central	19	20	25	17	19	20
Back Bay- Beacon Hill, Fenway-Kenmore	8	10	10	8	7	9
Allston- Brighton, Jamaica Plain, West Roxbury, Roslindale, Hyde Park	5	8	7	6	4	1
South End, Roxbury, Dorchester, Mattapan	10	14	10	10	12	7
Same Neighborhood	20	16	15	12	17	2
Boston, NA Part, No one place	5	3	1	3	5	1
Inner Suburbs	27	21	17	28	21	7
Outside SMSA	3	1	4	4	6	1
Total	100	100	100	100	100	100
N cases =	472	249	218	272	162	13

Notes: Based on 1,372 observations (weighted).

"N cases" indicates number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood Development
and Employment Agency Household Survey, conducted by the
Center for Survey Research, 1985

VII. Journey to Work

Boston residents did not change their commuting patterns greatly between 1980 and 1985. The proportion of resident workers who worked at home, walked to work or used alternative means of transportation remained constant over those five years. The slight shifts that did occur took place among those who drove or rode public transit to work. A decline in transit ridership was noticeable in most neighborhoods, and in some districts the drop was substantial, e.g., in South Boston, Charlestown, Back Bay-Beacon Hill, the South End and West Roxbury. In the case of Charlestown, one explanation can be found in the residential development at the former Navy Yard, a site which does not have convenient transit service.

Nearly one-third of Boston residents worked outside of the city, and an undetermined share did not live or work near public transit, so it is not surprising that half of Boston resident workers drove or car-pooled to work in 1985. See Table 53. Nonetheless, a quarter of Boston residents reached their jobs within ten minutes of leaving home, and another 15 percent spent between ten and fifteen minutes going to work. In all, 64 percent of Boston residents commuted 25 minutes or less to work each day. Of the remainder, 30 percent spent up to 45 minutes travelling to work. See Table 54.

Length of commute by means of transportation

Half of Boston residents commuted to work by private vehicle, and another third rode public transportation. The shortest commutes were those undertaken by car or on foot--53 percent of commutes lasting 10 minutes or less were by

car. Over one-third of these short commutes were accomplished on foot. Less than 10 percent of quick commutes involved the MBTA. The longest trips to work were primarily those made by bus or subway/commuter rail--95 percent of trips lasting between a half hour and 45 minutes, and 69 percent of journeys lasting over three-quarters of an hour, involved public transit.

It is unclear whether people who commuted for such long periods on the MBTA did so by choice or by necessity and whether the duration of the journey was a factor of distance or traffic. Unfortunately, the survey sample was too small to allow an analysis of commute by place of work and residence, and the question regarding choice of transportation was not asked. See Tables 55A and 55B.

Journey to Work Tables

Table 53. Means of Transportation to Work for Residents, by Neighborhood, 1980 and 1985
(in percent)

	Car, Truck or Van		MBTA		On Foot		Other*		TOTAL	N cases 1985
	1980	1985	1980	1985	1980	1985	1980	1985	1980/1985	
East Boston	50	48	37	36	13	16	*	*	100	76
Charlestown	35	49	46	30	14	17	5	3	100	35
South Boston	36	44	44	33	21	20	*	3	100	74
Central	25	22	15	15	59	55	1	7	100	67
Back Bay- Beacon Hill*	13	33	34	19	43	44	10	5	100	85
South End	26	30	44	32	23	34	8	4	100	71
Fenway-Kenmore	19		36		43			2	100	83
Allston- Brighton	50	52	37	36	8	9	5	3	100	234
Jamaica Plain	50	51	37	34	14	13	*	2	100	108
Roxbury	54	44	36	48	9	4	1	4	100	123
North Dorchester	40	48	45	46	13	5	2	2	100	64
South Dorchester	57	52	33	42	8	5	3	1	100	151
Mattapan	58	60	34	34	4	3	4	4	100	96
Roslindale	60	71	35	27	5	1	1	1	100	90
West Roxbury	69	83	25	14	5	1	1	2	100	95
Hyde Park	69	64	23	29	7	5	1	1	100	92
BOSTON	47	50	35	36	15	14	3	3	100	1542

Notes: "Other" includes taxis and bicycles, as well as those who worked at home.

* includes Fenway-Kenmore in 1980.
1985 data based on 1,542 observations (weighted).
1980 data based on 1,174 observations (weighted).

Sources: Boston Redevelopment Authority Household Survey, conducted by the Center for Survey Research, 1980.
Boston Redevelopment Authority and Neighborhood Development and Employment Agency Household Survey, conducted by the Center for Survey Research, 1985.
trans/ali53

Table 54. Commuting Time to Work, for
Boston Residents, 1985
(in percent)

Length of Commute -----	Percent commuting that long -----
1 - 10 minutes	25
11 - 15 minutes	15
16 - 20 minutes	17
21 - 25 minutes	7
26 - 30 minutes	17
31 - 45 minutes	13
46 - 60 minutes	5
61 or more	1
Total	100
N cases =	1487

Note: Based on 1,487 observations (weighted).
"N cases" indicates number of cases in sample.

Source: Boston Redevelopment Authority and Neighborhood
Development and Employment Agency Household
Survey, conducted by the Center for Survey
Research, 1985. trans/ajlam33

Table 55a. Means of Transportation to Work by Length
Commute, for Residents, 1985
(in percent)

	Private Vehicle -----	MBTA -----	Walked Only -----	Other -----	Total -----	N -----
1 - 10 min	53	9	36	2	100	377
11 - 15 min	64	13	19	4	100	220
16 - 20 min	58	30	11	1	100	246
21 - 25 min	53	39	8	*	100	99
26 - 30 min	46	49	4	1	100	252
31 - 45 min	32	65	2	1	100	196
46 + min	31	69	*	*	100	95
Total	50	33	15	2	100	1483

Table 55b. Distribution of Commuting Times to Work by Means
of Transportation, for Residents, 1985

	Private Vehicle -----	MBTA -----	Walked Only -----	Other -----	Total -----
1 - 10 min	27	7	60	35	25
11 - 15 min	19	6	18	39	15
16 - 20 min	19	15	12	9	17
21 - 25 min	7	8	4	*	7
26 - 30 min	16	25	4	9	17
31 - 45 min	8	26	2	9	13
46 + min	4	13	*	*	6
Total	100	100	100	100	100
N cases =	740	494	227	22	1483

Notes: Based on 1,483 observations (weighted).
"N cases" indicates number of cases in sample.

Source: Boston Redevelopment Authority and Neighborhood Development
and Employment Agency Household Survey, conducted by the
Center for Survey Research, 1985. trans/ab45ah89

VIII. Activities of those not in the Labor Force

Thirty percent of residents aged 16 years or more were not in the labor force when the survey was done in the spring of 1985. The vast majority of Boston residents who were not in the labor force at the time of the survey chose not to be. Only 17 percent of residents not in the labor force wanted to work but were not looking for work at the time. Some of these people might be called discouraged workers who were able to work but had ceased looking. The population of non-workers breaks down further to reveal that 90 percent of residents who ran households or cared for their families did not want to work, and 95 percent of retired respondents likewise did not want a job at that time. The majority (89%) of those who were attending school or pursuing personal interests also did not wish to be working. See Table 56.

Among those who stated that they did not want to work, 27 percent were taking care of their families and homes, 38 percent were retired and 31 percent were in school. Many of this group may choose to never work--e.g., some of the homemakers and retirees--but many more will enter the labor force at some time. Respondents were not asked if they intended to work at some later date, so we cannot estimate the relative size of the long-term non-participant population. See Table 57.

Non-Participation Tables

Table 56. Main Reason for Non-Participation in the Labor Force, of Residents 16 Years and Over, 1985
(in percent)

	Does not want a job -----	Wants job but not looking -----	Total -----	N -----
Caring for home and family	90	10	100	202
Retired	95	5	100	269
Pursuing other interests	89	11	100	33
Unable to find a job	0	100	100	60
In school	89	11	100	239
Ill or disabled	0	100	100.	1
Total	83	17	100	823

Note: Based on 823 observations (weighted).
"N" indicates number of cases in sample.

Source: Boston Redevelopment Authority and Neighborhood Development
and Employment Agency Household Survey, conducted by the
Center for Survey Research, 1985. elp/xlac34

Table 57. Distribution of Reasons for Not Participating
in the Labor Force, by Residents, 1985
(in percent)

	Does not want a job -----	Wants job but not looking -----	Total -----
Caring for home and family	27	15	25
Retired	38	9	33
Pursuing other interests	4	2	4
Unable to find a job	0	55	10
In school	31	18	29
Ill or disabled	0	1	1
Total	100	100	100
N cases =	679	144	823

Notes: Based on 823 observations (weighted).

* indicates less than 0.5 percent.

"N cases" indicates the number of cases in the sample.

Source: Boston Redevelopment Authority and Neighborhood
Development and Employment Agency Household Survey,
conducted by the Center for Survey Research, 1985.

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Appendix A

DEFINITIONS AND EXPLANATIONS OF TERMS USED IN THE HOUSEHOLD SURVEY

Definitions of population and household characteristics are adapted from or are the same as those used by the U.S. Bureau of the Census. All characteristics of individual persons and housing units are given by respondents. The only exceptions to this are for the types of appliances in the kitchen, how modern the kitchen is, the number of units in the building, and exterior condition of the housing. These characteristics are reported by the individual conducting the interview.

GEOGRAPHY

Neighborhood - The term neighborhood refers to one of sixteen BRA Planning districts in Boston.

Boston Metropolitan Area - The Boston metropolitan or "metro" area consists of towns and cities surrounding Boston which are socially and economically integrated with Boston. The metro area, as used in the survey, is the Boston Standard Metropolitan Statistical Area as it was defined in 1980.

CHARACTERISTICS OF PERSONS

Race - The categories of race in the 1980 and 1985 Household Survey include Black, Asian, Native American, Hispanic, and White, not Hispanic. Respondents were asked, "Which of these [categories] best describe person's background -- black, Asian, Hispanic, white, Native American, or something else?" This is not comparable to the 1970 and 1980 U.S. Census which asked two separate questions, the first identifying race and the second identifying Hispanic status. In addition to self-designated Hispanics, persons of other races in the Survey were moved to Hispanic from their initial category if they spoke Spanish at home or were born in a Spanish-speaking country.

Non-white - This category includes persons who designated themselves to be Black; Asian, including Chinese, Japanese, etc.; American Indian; Cape Verdean; or mixed racial background or other non-white.

Minority - Individuals were classified minority if they designated themselves to be Black, Oriental, American Indian, Cape Verdean, of mixed racial background, or other non-white (all of which are included in non-white, or Hispanic).

Ethnicity - Ethnicity is determined by the country of origin of a person's family. The question asks, "From what country or part of the world did most of (PERSON'S) family come from originally?" A Black person might answer, Africa or Jamaica. A person whose parents came from different countries, for example, Ireland and Poland, would answer whichever country (most of his or her family came from, or whichever) seem most appropriate. The information obtained from this question is compatible with 1980 Census information.

Handicapped - A person is defined as handicapped if he or she has a health problem that limits the amount or kind of work he or she can do. Respondents could then indicate the type of condition and whether or not the person has had the condition for three months.

HOUSEHOLD, FAMILY AND UNRELATED INDIVIDUAL

Household - A household includes all the persons who occupy a group of rooms or a single room which constitutes a housing unit. These residents may be related to each other (a family) or be unrelated individuals who share the unit.

Family Unit - A family unit consists of two or more persons related by blood, marriage or adoption. A single individual living alone or with unrelated persons is also considered a family unit.

Family - A family is a family unit which contains two or more family members.

Unrelated Individual - An unrelated individual is a member of a household who is not related to any other household member by blood or marriage, e.g., a person living alone, sharing a house or apartment with other unrelated individuals, or a boarder in a home.

Head of Family Unit - The head of a family unit is defined by policy as (1) the only adult, (2) husband of a married couple, (3) the person whose age is closest to 45 years.

Head of Household - The head of a household is the head of the first family the respondent mentions.

EMPLOYMENT STATUS

Employed - A person is considered employed if he/she is 16 years and over and was either working during the week before the interview or was on paid leave, or was working at least fifteen hours a week without pay in a family business, or was on temporary lay-off from a job due to lack of work.

Unemployed - A person 16 years and over who is not employed for pay but has been seriously looking for work during the previous four weeks and is available to accept a job. In addition, persons who have jobs which have not yet started are considered unemployed.

Labor Force - The labor force includes all persons 16 years of age and over who are either employed (including members of the Armed Forces) or unemployed.

Not in the Labor Force - All persons 16 years and over who are not classified as employed or unemployed are defined as not in the labor force. This category consists of retired workers, homemakers, students and ill or disabled persons.

Labor Force Participation Rates - Labor force participation rates are determined by summing all labor force participants in a particular population, and dividing by the total number of persons 16 years and over in that population.

Industry - The industry in which a person works is the kind of organization or business in which he is employed--for example, a hospital, construction firm, or a government agency. The Standard Industrial Code (SIC) is used to categorize employing organizations.

Occupation - An occupation is the kind of work a person does, for example, clerical work, welding, or sales. The 1980 Census occupational code is used as the basis for classifying types of jobs.

ECONOMIC CHARACTERISTICS

Family Income - Family income is the total of the income from all sources that flows to all family members.

Unrelated Individual Income - The income of a single person.

Household Income - The combined income of all single people and families occupying a housing unit.

Source of Income - One of numerous specified categories contributing at least \$500 per year to family income. The categories are wages and salaries; income from property; transfer payments; alimony; child support; gifts; pension or annuity; scholarship or fellowship; inheritance or life insurance; and gambling or lottery.

Poverty Status - A family or single person (unrelated individual) is defined as being poor if individual income is below the Bureau of the Census Poverty Guidelines. Because family units and individuals were not asked to report their exact income in the survey, but rather to select an income category in which their 1979 income fell, it is impossible to be precise in assigning families and persons to low-income status. Below is a table presenting family unit size, low-income threshold, and the income cut-off used in the survey.

<u>Family Size</u>	<u>Poverty Jan. 85 Guideline</u>	<u>Survey Poverty Category</u>
1 Person	\$ 5,280	\$ 5,999 or less
2 Persons	6,760	6,999 or less
3 Persons	8,280	7,999 or less
4 Persons	10,610	9,999 or less
5 Persons	12,560	12,499 or less
6 Persons	14,210	
7 Persons	16,160	14,999 or less
8 Persons	17,900	
9 Persons or more	21,170	19,999 or less

HOUSING CHARACTERISTICS

Housing Unit - A housing unit is a home or apartment.

Number of Rooms in Housing Unit - The total number of rooms in a housing unit excludes bathrooms, porches, halls, and unfinished rooms in the basement or attic.

Rental Payment - Rental payment is the monthly dollar amount spent by a family unit for apartment rent, including heat.

Contract Rent - Contract rent is the monthly rent agreed to or contracted by a household unit, regardless of any furnishings, utilities or services that may be included.

Gross Rent - Gross rent is the monthly rent agreed to or contracted by a household unit regardless of any furnishings, but includes heat, natural gas and electricity.

Appendix B

METHODOLOGY, SAMPLING PROCEDURE AND STATISTICAL ERROR OF THE BOSTON HOUSEHOLD SURVEY

The Boston Household Survey was conducted by the Center for Survey Research of the University of Massachusetts for the Boston Redevelopment Authority during the late winter and spring of 1985. Its purpose was to provide up-to-date, specific and accurate information about persons living in households in the City of Boston and its neighborhoods. Planners and program administrators within city government, executives and decision makers in both the public and private sectors, and researchers have all needed updated information. The main source of information on the characteristics of Boston households has been the decennial U.S. censuses. Therefore, the survey results will provide much needed information in the interim as well as additional information not available from the U.S. Census.

The advantage of a sample survey is that timely information can be gathered quickly and relatively inexpensively. However, because the information is received from a sample of Boston's population rather than the entire population, the results are subject to statistical error. Statistical error is a measure of the degree of uncertainty or, obversely, the level of confidence that should be associated with the survey results. Throughout this report error will mean statistical error, as opposed to mistakes.

This report provides a brief description of the survey methodology. It indicates how the sample was chosen, some of the measures used to ensure a high response rate, and the resulting sample sizes. It also indicates some of the limitations of this survey, and surveys in general.

The Boston Household Survey was designed and conducted so as to obtain information that is representative, relevant, accurate, and reliable as well as timely. The questionnaire was carefully worded and standardized to ensure that each interviewer asked exactly the same questions of each respondent.

The households interviewed were chosen by a stratified two-stage cluster sampling process.¹ In the first stage, the nearly quarter of a million housing units (and all the land area) were assigned to one of three groups: BHA public housing, major new construction (50 or more units) built since the 1980 Census, and all of the remaining housing and land area. These groups were further divided into "sampling units" or "blocks" with a minimum of 25 units in each. Sampling proceeded by choosing nearly 300 of these sampling units and an average of 6.7 housing units, chosen systematically, in each which yielded clusters of just under 5 responding units on average.

The second stage called for giving every housing unit within the city limits of Boston a one in 120 chance of being selected in the sample. This was carefully worked out so that, in fact, the joint probability of selecting a block times the probability of selecting a housing unit from that block was 1 in 120.

¹ More detailed information about the sampling process can be obtained from the Center for Survey Research.

The second stage called for giving every housing unit within the city limits of Boston a one in 120 chance of being selected in the sample. This was carefully worked out so that, in fact, the joint probability of selecting a block times the probability of selecting a housing unit from that block was 1 in 120.

A critical goal of the study was to produce estimates for each of 16 planning districts or areas used by the Boston Redevelopment Authority and 18 areas used by NDEA. Because of this goal, the initial selection of blocks was stratified by Neighborhood Statistical Area (NSA), a small geographic unit out of which both sets of planning areas can be formed. In this way, it was ensured that the portion of the total sample that came from each NSA would be in the correct proportion to the city total and not subject to normal sampling variability. This feature of the sampling design reduces the sampling error associated with city-wide estimates.

When a probability of 1 in 120 was applied across each of the planning districts, it was found that several areas would have too few interviews for reliable descriptions because of their small population size. Therefore, households in Charlestown, Franklin Field, and Mission Hill were selected at two times the rate of households in the rest of the city. To help defray costs, households in Allston-Brighton (a comparatively large area) were sampled at 1/2 the rate of the rest of the city. The result of the decision was to strengthen our ability to describe the population in all neighborhood areas. To obtain the overall figures for the city and for areas that cut across planning areas, the sample numbers for each of these four neighborhoods were subsequently weighted by 2 or 1/2 appropriate weights to compensate for the differential probability of selection that reflect the actual proportion of City housing units in those neighborhoods.

The initial selection process produced a list of some 2,064 addresses whose occupants were to be interviewed. No substitutions for any of the selected households were allowed. Of the 2,064 addresses screened, 127 were vacant and 102 were group quarters or nonresidential units. They were not included in the eligible sample of 1,835 occupied units. In these 1,835 occupied housing units were 1,835 families or individual persons and an additional 295 unrelated persons who may have been roommates, lodgers, boarders, etc. Both the head of family unit (family or single person) and any unrelated persons were interviewed. Of the 2,130 potential interviews, 1,625 were completed, 1,491 with household heads and 224 with unrelated persons. This yielded a 76.3% response rate citywide.

Every effort was made to obtain an in-house interview from households chosen for the sample including an advance letter, six personal on-site calls by an interviewer at different times of day, and telephone interview attempts thereafter. The household response rate for neighborhoods varied between 66% and 86%. The sample size goal to yield reliable neighborhood results was 70 completed interviews in each neighborhood. Three neighborhoods had fewer than seventy interviews: Charlestown, North Dorchester, and Roslindale. (See Table 1.)

² Overall sampling rate for households is the probability of the sampling unit being chosen times the probability of the households within the sampling unit being picked.

Table 1. Sample Numbers of Eligible Units and Complete Interview with Response Rates by Neighborhood (BRA Planning District)

<u>Planning District</u>	<u>Occupied Housing Units Plus Unrelated Individuals</u>	<u>HH and U.I. Completed Interviews</u>	<u>Response Rate</u>	<u>Persons Reported Interviewed</u>
East Boston	121	88	73%	196
Charlestown	96	68	71	139
South Boston	116	78	67	153
Central	111	82	74	114
Back Bay/Beacon Hill	138	102	74	135
South End	93	74	80	121
Fenway/Kenmore	133	112	84	175
Allston/Brighton	171	143	81	204
Jamaica Plain/Parker Hill	246	188	76	368
Roxbury	198	155	78	377
North Dorchester	85	69	81	177
South Dorchester	174	131	75	353
Mattapan	189	148	78	444
Roslindale	103	68	66	172
West Roxbury	110	76	69	192
Hyde Park	88	76	86	214
	<u>2,130</u>	<u>1,625</u>		<u>3,534</u>

Source: Floyd J. Fowler, Jr., "Final Report: Procedures for Survey of Boston's Neighborhoods", Center for Survey Research, University of Massachusetts - Boston, August 1985; Survey results.

* Numbers of persons in this column have been weighted. Numbers in parentheses are unweighted numbers of persons, the actual number of persons reported.

While this survey was carried out in a careful scientific manner, the user should be aware that there is error inherent in any sample survey results. Therefore, some cautions are necessary in the use and interpretation of these data.

The user must recognize that this is a sample of Boston's housing units and their associated households. As such, it does not include persons in dormitories, jails, convents, nursing homes, and other "group quarters" as well as those with no permanent home. Although the impact of this bias may be small, it is well to bear in mind that this is not a sample of the city's entire population, both for the representativeness of the results and their comparability with other data sources, such as the U.S. Census.

The largest source of error is nonresponse, cited above. Fortunately what information is available about nonrespondents indicates that they do not differ systematically and significantly from respondents except that they are more likely to live alone, to be white, to be under 65 years old, and to have no children living with them. However, we cannot really know in what way the absence of 24% of Boston's family units from our sample biases our results.

Another source of error is sampling error or variability which is due solely to chance. It is the error associated with taking a sample rather than the entire population as the study group. It is akin to the notion of the variability in the number of heads and tails turned up during 100 tosses of a coin. The amount of error associated with a sample percentage depends on both the size of the reported percent and the sample size on which the percent is based. Table 2 indicates the appropriate error for each sample value. The error, in general, declines as the sample values are further from 50% and the sample size increases. The user should not assume that the sample value is exactly the value for the population. The correct interpretation of sample results and the associated error is that the true value for the population lies somewhere within the range of sampling error around the sample value.

For instance, sample survey results indicate that 31 percent of the families living in the Back Bay/Central/South End neighborhoods earn \$50,000 or more a year. Because this proportion is based on a sample, it is uncertain whether or not the actual value is 31 percent. However, we can be almost certain that the true value lies close to this percentage. The calculation of sampling errors in Table 2 helps us to know how close. The 31 percent figure comes from the fraction 19/62. Therefore, we look in Table 2 for the row in which sample size is about 50 and the column in which the reported percent is about 20 or 80 percent. This yields a sample error of 12 percent. From this information, we know that the actual percentage earning \$50,000 or more a year among families in these neighborhoods lies between 19 and 43 percent (31% \pm 12%). Again, we might want to know the associated sampling error for all families in Boston earning \$50,000 or more, 10 percent, which is based on a size of 634 families citywide. Table 2 tells us that for a reported percentage of 10 percent and a sample size of 634, the sampling error is 3 percent. So the value for families is expected to be no more than 3 percent from the sample value of 10 percent, or between 7 and 13 percent.

This statement about error is not intended to discourage use of survey information. Instead, use of these materials is encouraged: the data included are the most current available and, in some cases, are not obtainable from any other reliable source.

Table 2. Sampling Errors by Sample Size and Approximate Reported Percentage for the Boston Study

<u>Sample Size</u>	<u>5 or 95%</u>	<u>10 or 90%</u>	<u>20 or 80%</u>	<u>50%</u>
50	-	-	12	16
75	-	7	10	13
100	-	7	9	11
150	4	5	7	8
175	4	5	7	8
200	3	5	6	8
250	3	4	6	7
300	3	4	5	6
400	2	3	4	6
500	2	3	4	5
750	2	3	4	5

Chances are 95 in 100 that the central value lies within the reported survey value, plus or minus the number of percentage points shown in this table. Errors included here assume average net design effect for clustering and stratification is 1.2.

Source: Floyd J. Fowler, Jr., "Final Report: Procedures for Survey of Boston's Neighborhoods", "Center for Survey Research, University of Massachusetts-Boston, August, 1985.

